

No. 2886

United States
Circuit Court of Appeals

For the Ninth Circuit

VINEYARD LAND AND STOCK COMPANY, a Corporation, and UTAH CONSTRUCTION COMPANY, a Corporation, Appellants.

VS.

TWIN FALLS OAKLEY LAND AND WATER COMPANY, a corporation, and OAKLEY CANAL COMPANY, a corporation, Appellees.

Transcript of the Record

NOV 29 1916

F. D. Monckton,
Clerk

*Upon Appeal from the United States District Court
for the District of Idaho, Southern Division.*

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COMPANY, a corporation, and OAKLEY CA-
NAL COMPANY, a corporation, Appellees.

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*In the District Court of the United States, for the
District of Idaho, Southern Division.*

TWIN FALLS OAKLEY LAND AND WATER
COMPANY, a corporation, and OAKLEY CA-
NAL COMPANY, a corporation,

Plaintiffs,

VS.

VINEYARD LAND AND STOCK COMPANY, a
corporation, and UTAH CONSTRUCTION COM-
PANY, a corporation, Defendants.

BILL—No. 510.

*To the Honorable, the Judge of the District Court,
of the United States, for the District of Idaho,
Southern Division:*

The Twin Falls Oakley Land and Water Company, a corporation organized and existing under the laws of the State of Delaware, and a citizen of said State of Delaware, and the Oakley Canal Company, a corporation organized and existing under the laws of the State of Idaho, and a citizen of said State of Idaho, bring this, their bill, against the Vineyard Land and Stock Company, a corporation organized and existing under the laws of the State of Utah, and a citizen of said State of Utah, and the Utah Construction Company, a corporation organized and existing under the laws of the State of Utah, and a citizen of said State of Utah, and thereupon your orators complain and say:

I.

That the Twin Falls Oakley Land and Water Company is a corporation organized and at all the times hereinafter mentioned was existing under the laws of the State of Delaware, and duly authorized and empowered to do business in the State of Idaho, having complied with the laws thereof relative to foreign corporations, and that it is now and was at all of the times hereinafter mentioned, a citizen of the State of Delaware.

That the Oakley Canal Company is a corporation organized and at all of the times hereinafter mentioned was existing under the laws of the State of Idaho, and that it is now and at all of the times hereinafter mentioned was a citizen of said State of Idaho.

II.

That the defendant, the Vineyard Land and Stock Company, is a corporation organized and at all of the times hereinafter mentioned was a corporation existing under the laws of the State of Utah, and is now and at all of the times hereinafter mentioned was a citizen of the said State of Utah.

That the Utah Construction Company is a corporation organized and existing under the laws of the State of Utah and is now and was at all of the times hereinafter mentioned a citizen of said State; that each of said defendant corporations has complied with the laws of the State of Idaho with reference to the appointment of a statutory agent upon whom the service of process may be made.

III.

That on or about the 15th day of June, 1908, Samuel H. Hays made an application to the State Board of Land Commissioners of the State of Idaho, under the provisions of Section 1615 of the Revised Codes of the State of Idaho, wherein and whereby said Samuel H. Hays proposed to construct certain irrigation works in Cassia County, State of Idaho, for the purpose of irrigating approximately forty-four thousand (44,000) acres of land situated in Townships twelve (12), thirteen (13), and fourteen (14) South, and Ranges twenty-one (21), and Twenty-two (22) East, Boise Meridian, in Cassia County, State of Idaho, said lands being arid in character and requiring irrigation in order to produce an agricultural crop.

That for the purpose of irrigating said land, said Samuel H. Hays proposed to divert the waters of Goose Creek in said Cassia County, to the extent of fifteen hundred (1500) cubic feet per second of time, and said Samuel H. Hays requested the State Board of Land Commissioners to procure the segregation of the lands hereinbefore mentioned, and also to procure a contract to be entered into between the United States of America, and the State of Idaho, under the terms of what is commonly known as the Carey Act, wherein and whereby the United States of America should promise and agree to convey to said State of Idaho the lands hereinabove described when said State should have procured the building of the necessary works for the irrigation of said lands; that said

proposal and request was received and after a report by the State Engineer of the State of Idaho, was accepted by said State Board of Land Commissioners of said State of Idaho.

That application was thereafter made for the segregation of said lands by the State of Idaho, and thereafter, the United States of America entered into a contract with the State of Idaho wherein and whereby said United States of America promised and agreed to convey to said State of Idaho the aforesaid lands upon the State securing the construction of the necessary irrigation works for the irrigation of the said lands.

IV.

That the Twin Falls Oakley Land and Water Company, one of the plaintiff corporations, was organized, among other things, for the purpose of constructing irrigation works in the State of Idaho under contract with said State.

That the said Samuel H. Hays, with the consent of the State Board of Land Commissioners of the State of Idaho, after making the proposal and request hereinbefore mentioned, conveyed to the plaintiff, the Twin Falls Oakley Land and Water Company, a corporation, all of his rights and interests acquired under and by virtue of said proposal and request.

V.

That thereafter, on the 12th day of August, 1909, the said Twin Falls Oakley Land and Water Com-

pany, one of the plaintiffs herein, made and entered into a contract with the State of Idaho under the terms of what is commonly known as the Carey Act, and the legislation of the State of Idaho supplemental thereto, wherein and whereby said Twin Falls Oakley Land and Water Company contracted and agreed with the State of Idaho to build and construct certain irrigation works in Cassia County, State of Idaho, consisting of a dam and canals for the irrigation of the lands hereinbefore mentioned, a copy of which contract, omitting the description of the lands to be irrigated, is filed herewith, hereby referred to and made a part hereof and marked Exhibit "A"; that the lands described in said contract and to be irrigated by the works therein described are shown and delineated on the plat annexed to said Exhibit "A";

That it was provided by the terms of said contract that the irrigation works should be constructed for the purpose of utilizing the waters of Goose Creek under permit issued by the State Engineer of the State of Idaho, No. 3751, for 500 cubic feet per second of the waters of said creek, together with other permits;

That the plaintiff herein, the Twin Falls Oakley Land and Water Company, has completed the construction of the irrigation works provided in said contract with the State of Idaho, referred to as Exhibit "A" herein;

That it is necessary to divert water from said Goose Creek at the points specified in the said con-

tract, Exhibit "A," in the County of Cassia, State of Idaho, to the amount and extent hereinafter specified for the irrigation of the lands hereinbefore mentioned; that the highest flow in high water of the said Goose Creek is less than eighteen hundred (1800) cubic feet per second of time, and that it is necessary to gather and use the entire flow of said Goose Creek for the purpose of irrigating the aforesaid lands and procuring the necessary water therefor.

VI.

That on the 27th day of March, 1908, Samuel H. Hays, the predecessor in interest of the plaintiffs herein made application to the State Engineer of the State of Idaho for authority and permission to divert 500 second feet of the waters of said Goose Creek in said Cassia County, State of Idaho, for the purpose of irrigating the lands hereinabove mentioned; that thereafter the State Engineer of the State of Idaho issued to the said predecessor in interest of the plaintiffs herein Permit No. 3751 authorizing and permitting the predecessor in interest of the said plaintiffs to divert from said Goose Creek, in said Cassia County, State of Idaho, 500 second feet of the waters of said stream for the purpose of irrigating said before mentioned lands;

That said permit was acquired in the interest of the plaintiff corporations and has been conveyed and transferred to the Twin Falls Oakley Land and Water Company, one of the plaintiffs herein for the use and benefit of the Oakley Canal Company and the stockholders of said last named company;

That on the 10th day of March, 1909, the predecessor in interest of the plaintiff companies made application to the State Engineer of the State of Idaho for authority and permission to divert 1000 second feet of the waters of said Goose Creek, in said Cassia County, State of Idaho, for the purpose of irrigating the lands hereinbefore mentioned; that thereafter the State Engineer of the State of Idaho issued to said predecessor in interest of the said plaintiff companies Permit No. 4731, authorizing and permitting the predecessor in interest of the plaintiffs to divert from said Goose Creek, in said Cassia County, 1000 second feet of the waters of said stream for the purpose of irrigating the aforementioned lands, and that said permit and all rights acquired thereunder have been heretofore conveyed to the Twin Falls Oakley Land and Water Company for the use and benefit of the Oakley Canal Company, and the stockholders thereof;

That the Twin Falls Oakley Land and Water Company thereafter commenced and completed the construction of the irrigation works provided for and set forth in each of said permits, said works being so located that the aforesaid lands might be irrigated therefrom, and having sufficient capacity therefor. That the said works so constructed are the said works specified in the said contract with the State of Idaho, Exhibit "A"; that said irrigation works have been heretofore completed and that the State Engineer of the State of Idaho, did on the 19th day of July, 1913, issue to the said Twin Falls Oakley

Land and Water Company, the holder of said Permit 3751, a certificate of completion of works as provided by the laws of the State of Idaho;

That thereafter, and on or about the first day of June, 1914, and within the proper time specified under the laws of said State of Idaho, the Twin Falls Oakley Land and Water Company made proof of the completion of its works under Permit No. 4731; that said proof of completion of works has been duly approved and that a certificate of completion of the works therein specified will be hereafter issued;

That in addition to said permits, the Twin Falls Oakley Land and Water Company has purchased rights to the use of the waters of Goose Creek from the various former users of said waters to the aggregate extent of 300 second feet, and that said rights are held by the Twin Falls Oakley Land and Water Company for the use and benefit of the Oakley Canal Company and the stockholders thereof;

That plaintiffs, and the water users acquiring rights from them, have priority to the use of the waters of said Goose Creek to the extent of 300 cubic feet per second prior and superior to the rights of all other persons using the waters of said stream, and have the right to the use of the waters of said stream to the extent of 500 cubic feet per second additional, prior to the rights of all other persons whose rights have accrued subsequent to the 27th day of March, 1908, and also have the right to the use of 1,000 cubic feet per second additional of the waters of said Goose Creek prior to all other persons whose rights

date subsequent to the 10th day of March, 1909; that they require the entire flow of Goose Creek and of all of the tributaries thereof above the point of diversion mentioned in said permits and in said contract, Exhibit "A," for the irrigation of the lands above mentioned and to supply the rights of the plaintiffs herein and those claiming under them.

VII.

That Goose Creek above the point of diversion of plaintiffs' is formed by various small streams and creeks having their sources in the State of Idaho, and the State of Nevada, which join together in the State of Nevada and flow thence northward into the County of Cassia, State of Idaho, and thence emptying into the Snake River in said State.

VIII.

That under the terms of said contract, Exhibit "A," between the State of Idaho and the said Twin Falls Oakley Land and Water Company, one of the plaintiffs herein, it was provided and required that the said Twin Falls Oakley Land and Water Company, commonly known as the Construction Company, should construct the irrigation works therein provided for and should thereafter organize a certain company to be called the Oakley Canal Company, which company should, after the completion of the works, own, operate and conduct the same and all water and water rights used in connection therewith as is more particularly set forth in said contracts, Exhibit "A" and "B," to which reference is hereby made.

That after the making of said contract, Exhibit "A," and of the contract between the United States of America and the State of Idaho, providing for the transfer to said State of the hereinbefore described lands approximating 44,000 acres, said lands were thrown open for settlement by the State of Idaho in pursuance of the provisions of the laws of said State relating thereto and upwards of four hundred (400) persons made entries of land upon said lands hereinbefore described in pursuance of the laws of said State, and purchased shares of stock in the Oakley Canal Company as provided in said contract Exhibit "A," and said persons are desirous of using and are entitled to use the waters of said Goose Creek for the irrigation of their said lands to the extent hereinbefore specified and that said waters are necessary for the irrigation of the above mentioned lands. That under the provisions of the laws of the State of Idaho relative thereto, said persons are required to irrigate and reclaim their lands by means of said irrigation system in order to acquire title to said lands;

That the United States of America will not make conveyance of the lands hereinbefore mentioned to the State of Idaho until said irrigation works are constructed and a supply of water sufficient for the reclamation of said lands is provided through said irrigation system.

IX.

That at the time of the making of entry of the lands above described by the aforementioned entrymen, each of said persons entered into a contract

with the Twin Falls Oakley Land and Water Company in the form of a copy of which is filed herewith and marked Exhibit "B" and hereby referred to and made a part hereof.

X.

That the defendant, the Vineyard Land and Stock Company has commenced and is now constructing and had constructed canals and ditches in the State of Nevada for the purpose of diverting and using the waters of Goose Creek and its tributaries and preventing the same from flowing down said stream into the State of Idaho, and preventing the use of said waters by the plaintiffs herein and by the stockholders of said Oakley Canal Company; that the said defendant threatens to and will, unless prevented by the order, decree and judgment of this court, divert, consume and use the waters of said stream before the same reach the irrigation works of the plaintiffs herein, and will prevent the use of said waters by said plaintiffs and the stockholders of said Oakley Canal Company to the extent and in the manner in which said stockholders are entitled, to use the same as set forth in said Contract, Exhibit "A," and in the contract Exhibit "B" hereinbefore mentioned;

That plaintiffs are unable to ascertain the exact nature or extent of the claim made by the said defendants to the waters of said Goose Creek, or of its tributaries above the point of diversion of plaintiffs' works, but that all of the rights of the said defendants thereto are subsequent and subject to the rights of the plaintiffs herein and of the stockholders of the said Oakley Canal Company.

XI.

That the Oakley Canal Company, one of the plaintiffs herein, is the company mentioned in said agreement Exhibit "A," and is commonly known as the Operating Company and is the company whose shares of stock represent the water rights of the settlers upon the lands before mentioned, and is the company for whose use and benefit the said irrigation works were constructed, all of which more fully appears by reference to said Exhibit "A";

That the plaintiffs herein and the stockholders of the said Oakley Canal Company, according to their respective interests, are the owners and holders of said irrigation works and the water rights and permit hereinbefore mentioned, and are now entitled to divert at plaintiffs' point of diversion from the said Goose Creek eighteen hundred (1800) cubic feet per second of time of the waters of said creek, being the entire flow thereof, and of all of the tributaries thereof above the point of diversion hereinbefore mentioned, which point of diversion is situated in Cassia County, State of Idaho, and to impound said waters in a reservoir as provided in the contract Exhibit "A." That all of the waters of said Goose Creek are required for the irrigation of the lands hereinbefore mentioned, which said lands are under and may be irrigated from the irrigation system of the plaintiffs herein.

XII.

That the defendant, the Vineyard Land and Stock Company, is the owner of lands in the State of Ne-

vada and in the State of Idaho; that said corporation has designated Twin Falls County, State of Idaho, as its principal place of business in said State, and has appointed an agent therein upon whom the service of process may be made and has filed the designation of such agency with the Secretary of State of the State of Idaho, and with the County Recorder of said Twin Falls County, and that C. B. Channell of Twin Falls County is the agent of said Company so designated;

That the defendant, the Utah Construction Company is the owner of lands in the State of Nevada and in the State of Idaho, and is, as plaintiffs are informed and believe, the owner of the stock, or nearly all of the stock of the Vineyard Land and Stock Company and has control of the said company and directs its operations; that said Utah Construction Company has designated Rexburg, in the County of Madison (formerly Fremont), State of Idaho, as the principal place of business in the State of Idaho, and has appointed I. N. Corey as its agent therein upon whom the service of process may be made and has filed the designation of such agency with the Secretary of State of the State of Idaho as required by law. That each of defendants is engaged in business in and owns property within the State of Idaho.

XIII.

That the plaintiffs herein and those claiming under them are entitled to the use and enjoyment of the waters of said Goose Creek and are entitled to impound the waters thereof in the reservoir mentioned

in said contract Exhibit "A," in order to better utilize the said waters for the irrigation of the lands hereinbefore mentioned, and that plaintiffs and those claiming under them have a prior right to the use of said waters prior and superior to that of the defendants, or either of them; that notwithstanding the priority of the rights of the said plaintiffs and those claiming under them, the said defendants set up and claim some right to the use of the waters of Goose Creek and the tributaries thereof above plaintiffs' point of diversion superior to the rights of the plaintiffs and those claiming under them.

WHEREFORE, your orators pray that the said defendants and each of them be required to fully set forth the nature of their claims to the use of the waters of said Goose Creek and of the tributaries thereof; that the right, title and interest of the plaintiffs herein and of those claiming under them in and to the use of the waters of said Goose Creek be adjudged and decreed to be prior and superior to the rights of the defendants herein and that the plaintiffs' right and title to the use of the said waters be quieted and determined.

That the defendants and each of them, their agents, servants and successors in interest, be forever enjoined and restrained from diverting or using the waters of said Goose Creek, or any of the tributaries thereof above the plaintiffs' point of diversion, and that a preliminary restraining order may issue herein and that a temporary injunction may issue pending the final determination of this

suit restraining and enjoining the said defendants and each of them from diverting or using the waters of said stream, or the tributaries thereof, and that your orators may have such other relief as the court may deem equitable and proper.

May it please your Honor therefore to grant unto your orators the writ of subpoena to be issued from the Clerk's office of this court directed to the said defendants and commanding them to appear herein upon a date to be named therein, and full and true answer to make to this bill but not under oath, an answer under oath being waived, and your orators will forever pray.

TWIN FALLS OAKLEY LAND AND WATER
COMPANY, a corporation, OAKLEY CANAL
COMPANY, a corporation,

By S. H. Hays and P. B. Carter, Their Solicitors.

State of Idaho,
County of Ada.—ss.

P. B. Carter, being first duly sworn, deposes and says that he is one of the attorneys for the plaintiffs corporations herein; that he has read the foregoing Bill and knows the contents thereof and that the same is true of his own knowledge except as to those matters therein alleged to be upon information or belief and that as to those matters, he believes it to be true.

That affiant makes this verification for the reason that all of the officers and agents of the plaintiff cor-

porations are absent from the County of Ada wherein affiant resides.

P. B. CARTER.

Subscribed and sworn to before me this 5th day of November, 1914.

(Seal.)

P. MARTIN, N. P.

SUBSTANCE OF EXHIBIT "A."

Agreement

THE STATE OF IDAHO AND TWIN FALLS
OAKLEY LAND AND WATER COMPANY

August 12, 1909.

Contract.

This agreement, made and entered into in triplicate this 12th day of August, 1909, by and between the State of Idaho, the party of the first part, through the State Board of Land Commissioners of said state, said Board consisting of James H. Brady, Governor; Robert Lansdon, Secretary of State; D. C. McDougal, Attorney General, and S. Belle Chamberlain, Superintendent of Public Instruction of said State, and the Twin Falls Oakley Land and Water Company, a corporation organized and existing under the laws of the State of Delaware and lawfully doing business in the State of Idaho by virtue of a compliance with the laws thereof, the party of the second part, WITNESSETH, that

WHEREAS, The party of the second part has succeeded to all of the rights of Samuel H. Hays, which rights are evidenced by the Proposal and Request heretofore made by him on the 15th day of June,

1908, and the amended Proposal and Request made by him on the 21st day of June, 1909, which amended Proposal and Request was approved by the State Board of Land Commissioners of the State of Idaho, on the 21st day of June, 1909, said Proposals and Requests having been made under the terms of what is commonly known as the "Carey Act" and the State legislation supplemental thereto; and

WHEREAS, There has been heretofore segregated under the Proposal and Request of date of June 15th, 1908, 43,693.56 acres of land situated in Cassia County, Idaho, described in List 23 filed in the United State Land Office at Hailey, Idaho, a copy of which is hereto attached and is hereby referred to and made a part hereof; and

WHEREAS, All of the property, rights and franchises of the said Samuel H. Hays acquired under and by virtue of the said Proposals and Requests have, with the consent of the State Board of Land Commissioners, been duly transferred to the party of the second part herein.

It is mutually agreed and covenanted as follows:

Purpose of Contract.

1. That for and in consideration of the covenants of the said party of the first part herein contained, the party of the second part agrees to construct and build those certain irrigation works mentioned and described in the aforesaid amended Proposal and Request dated on the 21st day of June, 1909, and hereinafter more particularly described, and to sell shares of water rights in said irrigation

system from time to time, as hereinafter provided, to the person or persons filing upon the lands hereinafter described, and also to the owners of other lands not described herein, but which are susceptible of irrigation from said system or from any extension or enlargement thereof, said shares or water rights to be sold on the terms hereinafter provided, and also to transfer the ownership, management and control of said irrigation system to the purchasers of shares or water rights as hereinafter set forth.

General Specifications.

2. *Dam.*—The dam is to be located in Section nineteen (19), Township fourteen (14) South, Range twenty-two (22) East, and is to be approximately one hundred and forty-three (143) feet high. The slopes are to be three (3) to one (1) up stream and two (2) to one (1) down stream. The material is to be puddled earth with a thin concrete core. The slopes are to be faced with stone to a depth of two feet. The reservoir created by this dam has been determined to have a storage capacity of approximately seventy thousand (70,000) acre feet.

Gates.—Duplicate outlet gates will be provided, each having a capacity sufficient to discharge the maximum amount of water required, and so proportioned that they can be readily operated when under maximum pressure.

Sluice-way.—The sluice way will consist of a tunnel ten by ten feet (10x10) driven through the solid rock at the east end of the dam.

Gathering System.—In order to augment the sup-

ply of water, a gathering system will be constructed, as shown upon the plans filed with the Proposal and Request of June 21st, 1909, consisting of a canal on the west side of the valley and a canal on the east side of the valley, both of which will empty into the reservoir above the dam.

The canal of the west side gathering system will have an approximate length of twelve and one-fourth ($12\frac{1}{4}$) miles. It will be approximately twenty-eight (28) feet wide on the bottom. The slopes of the banks will be three (3) to one (1); depth of water to be carried, two feet; approximate grade, five and twenty-eight hundredths (5.28) feet to the mile, which dimensions give the canal a carrying capacity of one hundred (100) second feet. The upper bank will be built only in such places as may be reasonably required. Galvanized steel flume will be used where necessary.

The canal of the gathering system on the east side will have a length of approximately ten and one-fourth ($10\frac{1}{4}$) miles, and will have the same dimensions, grade and capacity as the west side canal.

Distribution System.—The system for the distribution of the water for irrigation purposes will be constructed as follows:

The west side main canal will take water from Goose Creek in section seventeen (17), township fourteen (14) South, Range twenty-two (22) East, and will extend in a northwesterly direction to approximately Section three (3), Township twelve (12) South, Range twenty-two (22) East. At its head, it

will be of the following dimensions: Width, twenty (20) feet; depth of water three (3) feet; side slopes three (3) to one (1); grade, six (6) feet per mile; said canal has been determined to have a capacity of three hundred and twenty-five (325) second feet. It will gradually diminish in size towards the end.

The east side canal will take water from Goose Creek in Section seventeen (17), Township fourteen (14) South, Range twenty-two (22) East, and will extend in a northeasterly direction a distance of fifteen (15) miles. It will have a width on the bottom of twelve (12) feet, depth of water three (3) feet; side slopes, two (2) to one (1); grade, six (6) feet per mile, and an estimated capacity of one hundred and seventy-five (175) cubic feet of water per second. It will gradually narrow towards the end so that it may be of such dimensions as to properly serve the area to be irrigated under it.

High Line Canal.—This canal will take water from Goose Creek in Section nineteen (19), Township fourteen (14) South, Range twenty-two (22) East, and extend in a northeasterly direction a distance of eight (8) miles to a point near the northeast corner of Section thirty-four (34), Township thirteen (13) South, Range twenty-two (22) East. It will have a width on the bottom of six (6) feet; depth of water one and five-tenths (1.5) feet; side slopes, two (2) to one (1); grade, three feet per mile, and an estimated capacity of eleven and five-tenths (11.5) second feet. It will narrow towards the end so as to be of such dimensions as to properly serve the area to be irrigated under it.

Lateral System.—The lateral system will be so designed and located as to supply to the land thirty per cent (30%) of the entire water supply every thirty (30) days. The grades and cross sections of canals shall be varied to suit conditions with a view to having the necessary carrying capacity for the delivery of water under a rotation system.

Right of Way.

3. (Provides for rights of way over lands belonging to the State of Idaho or lands that may be ceded to the State by Act of Congress commonly known as the Carey Act; also that the number and location of laterals and waste ditches shall be determined by the Chief Engineer of the company, subject to the approval of the State Engineer; also that detailed maps showing location of canals, laterals, reservoir and waste ditches shall be filed with the Board and with the State Engineer; also that no compensation shall be paid to land owners for rights of way herein provided for.)

Appropriation of Water.

4. The party of the second part is the owner of those certain water rights evidenced by permit No. 3751 for 500 cubic feet per second of the waters of Goose Creek; permit No. 4734 for 300 cubic feet per second of the waters of Cottonwood Creek; permit No. 4732 for 300 cubic feet of the waters of Little Cottonwood Creek; permit No. 4735 for 300 cubic feet of the waters of Birch Creek, and permit No. 4733 for 200 cubic feet of the waters of Basin Creek,

all of said permits having been heretofore issued and approved by the State Engineer of the State of Idaho, and the party of the second part agrees to convey said water rights, together with such other water rights as it may acquire in connection with this project, to the Oakley Canal Company, hereinafter more particularly mentioned, to the end that there may be furnished and delivered to the said irrigation system and to the owners of shares therein, as specified in the other provisions of this contract, all of the said appropriated water to which the said second party may be entitled to the extent of one and one-half acre feet of water during the irrigation season, to be delivered under a system of rotation, as hereinafter provided; said water is to be measured at a point not farther distant than one-half mile from each quarter section of the lands herein described which are to be irrigated from the system. In case the measuring device cannot conveniently be placed at the point above mentioned, then it shall be so placed as the needs of the irrigation system require, but shall be so adjusted as to deliver the necessary amount of water at the point above specified.

Entry of Lands.

5. Upon the execution of this contract and when the actual construction of the irrigation system shall have been inaugurated, the said party of the first part agrees to have notice given in conformity with law for the throwing open of not less than thirty-eight thousand (38,000) acres of the lands described in List No. 23 attached hereto, said lands to be open-

ed for settlement under such regulations as to the manner of said opening as shall be prescribed by the State Board of Land Commissioners. Additional lands are to be opened for entry as rapidly as the water supply and the development of the irrigation works will justify.

Application for Lands.

6. The said party of the first part, through its State Board of Land Commissioners, agrees that it will not approve any application for or filing on any of the lands hereinafter described until the person or persons so applying shall furnish to the said Board a true copy of the contract entered into with the party of the second part for the purchase of sufficient shares or water rights in said irrigation works for the irrigation of said lands, said shares or water rights to be evidenced by the stock of the Oakley Canal Company, one share being issued for each acre of land, as hereinafter provided, and the said second party stipulates and agrees that to the extent of the capacity of the irrigation works and to the extent of the water rights to which it is entitled, as rapidly as lands are thrown open for entry, it will sell or contract to sell water rights or shares for land to be filed upon to qualified entrymen without preference or partiality other than that based upon priority of application, it being understood, however, that priority of application or priority of entry or settlement shall not give any priority of right to the use of water flowing through the canal or irrigation works against subsequent purchasers, but shall entitle the purchaser

to a proportionate interest only therein, the water rights having been taken for the benefit of the entire tract of land irrigated from the system. The priority of application upon opening days shall be determined by a system to be devised under the direction of the State Board of Land Commissioners.

Sale of Land by the State.

7. The said party of the first part, acting through its State Board of Land Commissioners, agrees to sell the lands herein described to such persons as are or may be by law entitled to file upon the same for the sum of Fifty Cents (\$.50) per acre, one-half of which sum shall be paid at the time of application for the entry of such lands made to said Board and the remaining one-half at the time of the making final proof thereon.

Price of Water Rights.

8. (Provides that second party is to sell settlers one share, representing a proportionate interest in said water rights and irrigation system, based upon the number of shares finally sold in said system, at sixty-five dollars (\$65.00) per share, to be paid, one-fifth in cash on date of agreement, and remainder in five equal annual installments, with interest at six per cent. per annum; also that for all entries made within two years from this date, the charge shall be three dollars in cash at the time of entry and the balance in twelve annual installments, with interest at six per cent. per annum; also, in case entrymen on desert lands, or homestead lands, or the owners

of any lands other than those segregated under the Carey Act, decline to purchase water rights within six months after Carey Act lands are thrown open for settlement, two dollars forty cents (\$2.40) may be added to the price of water rights for each year's delay or fraction thereof; also provides that this agreement shall not be construed to prevent the sale of water rights on terms more favorable than those herein provided for, or to prevent the payment of installments on the purchase price in advance of maturity, at option of purchaser; also provides that water right contracts and shares of stock may be issued to the owners of patented land prior to date Carey Act lands are thrown open for entry.)

Transfer of Possession and Management of Canal.

9. It being necessary to provide a convenient method of transferring the ownership and control of said irrigation system from the said party of the second part to the purchasers of water rights in said irrigation system, and for determining their rights among themselves and between said purchasers and the party of the second part herein, for the purpose of operating and maintaining said canal during the period of construction and afterwards, and for the purpose of levying and collecting tolls, charges and assessments for the carrying on and maintenance of said irrigation system, and the operating and management thereof, it is hereby provided that as soon as said lands are ordered thrown open for settlement, a corporation to be known as the Oakley Canal Company shall be formed at the expense of the party of

the second part, the Articles of Incorporation of said company to be substantially in the form which is filed herewith and made a part hereof; that the authorized capital stock of said corporation shall be seventy-five thousand (75,000) shares of the par value of one (\$1.00) dollar each, which amount is intended to represent one share for each acre of land which may be hereafter irrigated from said system. The entire authorized amount of the capital stock of said corporation shall be delivered to the party of the second part herein in consideration of the covenants and agreements herein contained, in order to enable it to deliver to purchasers, or water rights the shares of stock representing the same, said shares of stock, however, shall have no voting power and shall not have force and effect until they have been sold or contracted to be sold to the purchasers of land under this irrigation system. At the time of the purchase of any water right, there shall be issued to the purchaser thereof one share of the capital stock of said corporation for each acre of land entered or filed upon; but the said party of the second part therein shall, in case said water rights or shares of stock are not fully paid for, require the endorsement and delivery to it of said stock, and shall at the same time require of said purchaser an agreement that until fifty (50%) per cent of the purchase price of said stock has been paid, that the said party of the second part herein shall vote said stock in such manner as it may deem proper at all meetings of the stockholders of said corporation; pro-

vided, however, that the party of the second part may deliver said stock to the purchaser at its option, and surrender its right to vote the same, at any time after thirty (30%) per cent of the purchase price of said stock has fallen due. The said Oakley Canal Company shall have the management, ownership and control, as above set out, of the said irrigation system as fast as the same is completed and turned over to it for operation by the said party of the second part, as hereinafter provided. Whenever it is certified by the Chief Engineer of the Company and the State Engineer that certain portions of the said irrigation system are completed for the purposes of operation, the same shall, with the consent of the State Board of Land Commissioners, be turned over to the Oakley Canal Company, for operation, and said system or portions thereof shall be turned over for the purpose of operation, although not fully completed in all details. The transfer to said Oakley Canal Company, however, shall not in any manner lessen the responsibility of the said second party with reference to the terms of this contract, nor shall such consent upon the part of the State Board be construed as a final acceptance of such portion of such canal, it being understood that the bond given for the faithful performance of the contract shall call for the substantial completion of the entire irrigation system. It shall be the duty of said Oakley Canal Company to operate said irrigation system skillfully and effectively.

Water Rights Dedicated.

10. (Sets forth form of certificate of shares of stock in Oakley Canal Company; provides for method of delivering water to irrigators during the time the party of the second part retains control of the Oakley Canal Company; also provides that the sale of water rights to purchasers shall be a dedication of the water to the lands to which the same are to be applied.)

Management of Water and Charges for Delivery.

11. (Provides that water must be made available at a point not to exceed one-half mile measured in a direct line from each quarter section of land; that each settler shall, under the direction of the Chief Engineer of the second party, build and furnish one gate and measuring device for his own use, but all other gates, weirs and measuring devices in the main canals or main or subordinate laterals shall be furnished by the second party; that no charge shall be made to purchaser for delivery of water prior to the 1st day of March, 1912; but thereafter for each succeeding year while the second party retains control it may charge and assess purchasers of water rights thirty-five cents per acre, said sum to be due and payable on the 1st day of March of each year; that if the sum so raised shall be insufficient while second party retains control of system, to pay expenses of operation, maintenance and repair and management of system, second party shall supply deficiency; after such time actual costs of maintenance are to be paid by settlers; defines terms "main

lateral," and "subordinate lateral," and that "coulees or draws used as a lateral shall be included within these terms.")

Completion of System.

12. Said party of the second part agrees to begin work on the said irrigation system within six (6) months from the date of this contract and to complete one-tenth (1-10) of the construction work within two years from this date; that the construction work shall be prosecuted diligently and continuously to completion and that a cessation of work under this contract for a period of six (6) months after the second year without the sanction of the State Board of Land Commissioners will forfeit to the State all rights under this contract.

Second party agrees to have said canal system constructed in accordance with this contract within five (5) years from the date hereof, it being understood, however, that detailed plans and specifications of said work have not yet been completed and that such detailed plans and specifications are to be approved by the State Engineer and that, with his consent and the consent of the State Land Board, alterations and changes may be made in the plans prepared and filed.

Forfeiture.

13. It is agreed that the rights of the second party herein may be forfeited in accordance with the laws of the State of Idaho now in force and effect.

Estimated Cost.

14. The estimated cost of the proposed irrigation works is \$1,750,000.00 and the price fixed at

which water rights are to be sold for each acre of land and for which liens are hereby authorized and created against the separate legal subdivisions of land herein described is deemed necessary in order to pay the costs and expenses of reclamation and interest thereon. The existing laws under which this contract is made are understood and agreed to be a part of this contract.

Description of Lands.

15. The lands hereinbefore referred to are lands donated to the State of Idaho under and pursuant to the Act of Congress approved August 18th, 1894, and the amendments relating thereto, commonly called the Carey Act and also other lands the irrigation and reclamation of which this contract is designed to effect. The lands segregated under the Carey Act are set forth in the List herewith marked Exhibit "A" which is hereby referred to and made a part hereof.

Highways.

16. (Provides that land entries are made subject to rights of way for roads.)

Water Supply for Cities and Towns.

17. (Provides for water supply for cities and towns under certain conditions.)

Delivery of Water to Users.

18. (Provides that water shall not be delivered to persons who have not purchased water rights; also provides for delivery of water by Oakley Canal Com-

pany under a rotation system and that in case of shortage the available supply shall be delivered pro-rata to users without preference or priority.)

Mortgage.

19. (Provides that system may be mortgaged.)

Amendments.

20. (Provides how contract may be amended; that detailed plans and specifications shall be filed from time to time as the work progresses; that with the consent of the State Land Board the irrigation system may be enlarged to cover lands not under the system as at present designed.

Coulees and Draws.

21. (Provides that coulees and draws may be used as waterways when made to conform to artificially constructed laterals.)

Domestic Water Supply.

22. (Provides for delivery by Oakley Canal Company of domestic water supply when necessary outside of irrigation season, under rules, regulations, terms and conditions to be determined by it.)

Railroad.

23. (Provides that entries of land shall be made subject to right of way of the Milner & North Side Railroad without compensation to settlers for land taken therefor, but that deduction shall be made from water right for lands so taken.)

Purchase of Old Water Rights.

24. It is understood that the party of the second

part has arranged for the purchase of a large number of old water rights in Goose Creek covering between six and seven thousand acres of land, which water rights are to be conveyed to the second party and by it to the Oakley Canal Company, and inasmuch as it has been arranged with the holders of said water rights, under the terms of this contract, evidenced by stock in the Oakley Canal Company, it is agreed that stock in said Oakley Canal Company, fully paid up may be issued to the holders of old water rights in lieu of such rights on the terms agreed to between them and the party of the second part and fully paid up water contracts for said water rights may be issued and the issuance thereof is hereby approved. The amount and number of water contracts issued under this provision shall be reported to the Board.

WHEREAS, All the requirements of law have been, in so far as this contract is concerned, fully met and in every respect complied with; the execution of this contract is therefor ordered.

IN WITNESS WHEREOF, the said party of the first part, the State of Idaho, has by resolution of its State Board of Land Commissioners, caused this agreement to be signed in duplicate by its Governor, who is ex-officio president of said State Board of Land Commissioners, and attested by the Registrar of said Board.

AND, the said party of the second part has hereunto caused its corporate name to be subscribed by

its proper officer and to be duly attested, as provided by resolution of its Board of Directors.

THE STATE OF IDAHO AND THE STATE
BOARD OF LAND COMMISSIONERS,

By James H. Brady, Governor and President of
said Board.

Attest: M. I. Church, Registrar.

TWIN FALLS OAKLEY LAND AND WATER
COMPANY,

(Seal.) By Jerome Hill, Jr., Vice-president.

Attest: C. W. Sheck, Assistant Secretary.

(Map of plat of Oakley Project is attached to the
exhibit.)

EXHIBIT "B."

Oakley. Contract No.....

TWIN FALLS OAKLEY LAND AND WATER
COMPANY.

Agreement.

This Agreement, Made in duplicate this....day
of....., 19.., between the Twin Falls Oakley
Land and Water Company (for convenience herein-
after called "the Company") a corporation organ-
ized and existing under the laws of the State of
Delaware, party of the first part, and.....
(for convenience hereinafter called "the Pur-
chaser"), of....., State of, party of
the second part, witnesseth:

That the Company has heretofore entered into a
contract with the State of Idaho, acting by its State
Board of Land Commissioners, whereby the Com-

pany bound itself to construct a system of canals and irrigation works for the reclamation and irrigation of certain lands therein described and referred to, which contract is of record in the office of the Register of the State Board of Land Commissioners at Boise City, Idaho, and is dated August 12th, 1909, and is hereinafter called the "State Contract."

That the Company has heretofore entered upon the work of construction of said irrigation system for the purpose of diverting the waters of various streams under the appropriations set forth in the State Contract.

That the State Board of Land Commissioners, pursuant to law and its rules and regulations, has notified the Company that it may proceed to sell or contract rights to the use of water flowing and to flow through the canals and rights to and in said system of irrigation works, pursuant to law and to the terms of said contract with the State.

That the Purchaser has made application to the Company to be permitted to purchase, upon the terms hereinafter set forth, the rights and privileges by said contract guaranteed, to the extent hereinafter named, which said application has been accepted by the Company subject to the approval of the State Board of Land Commissioners, whose approval, previous to the delivery hereof, has been by its Register endorsed hereon.

That in consideration of the sum of Dollars, cash in hand paid this day by the Purchaser to the Company and in consideration of the covenants and

agreements hereinafter contained, it is agreed in pursuance of the State contract that the Purchaser shall become entitled to.....shares of the capital stock of the Oakley Canal Company, the certificate thereof to be in the form as follows, to-wit:

OAKLEY CANAL COMPANY.

:.....Shares., 19...

This is to certify that.....is the owner ofshares of the capital stock of the Oakley Canal Company.

This certificate entitles the owner thereof to a water right of one and one-half acre feet of water for each acre of the following described land:, Section....., Township.....South,of RangeE. B. M., containing.....acres in Cassia County, State of Idaho, in accordance with the terms of the contract between the State of Idaho and the Twin Falls Oakley Land and Water Company, dated August 12, 1909, and this certificate also entitles the owner to a proportionate interest in the dam, canal, irrigation works and water rights, together with all the rights and franchises attached thereto, based upon the number of shares finally sold in accordance with the said contract between the said Company and the State of Idaho.

OAKLEY CANAL COMPANY,

By.....President.

Attest:Secretary.

Said certificate to be delivered as provided for in said State contract and under the conditions therein stated.

The water which the Purchaser shall have the right to conduct and receive through the said canal system shall be used upon and the water shall become dedicated and be appurtenant to the land above described and none other.

And the parties hereto expressly agree as follows, to-wit:

1. This agreement is made in accordance with the provisions of said contract between the State of Idaho and the Company, which, together with the laws of the State of Idaho under which this agreement is made, shall be regarded as defining the rights of the respective parties, and shall regulate the provisions of the shares of stock to be issued to the purchaser by the Oakley Canal Company.

2. The Company agrees that so long as it retains control of the Oakley Canal Company, to-wit, so long as it shall continue to vote a majority of the stock of said Company, as provided by the State Contract, that it will cause said Company to keep and maintain the said irrigation system in good order and condition and to cause any necessary repairs thereto to be made as soon as practicable and expedient.

Said Oakley Canal Company is to have power to levy all necessary tolls, charges, and assessments upon all users of water in proportion to their respective holdings of stock, whether water is used or not, and the Company hereby agrees that no charges shall be made for the delivery of water from this date until after the first day of January, 1912, and that there-

after the annual charge for maintenance shall not, during the period prescribed in the State Contract, exceed the sum of 35 cents for each and every acre, to be charged against the entire acreage irrespective of the irrigation thereof. The Purchaser agrees to pay said charges at the office of the Oakley Canal Company, on the first day of April of each year without notice.

3. The consideration for the water rights hereby agreed to be conveyed is the sum of \$....., and the balance thereof remaining due after the cash payment hereinbefore acknowledged, to-wit, the sum of \$....., is due and payable as follows, to-wit:

	DUE	Princi- pal	Inter- est	Amt.
1st Deferred Payment	Apr. 1, 1912	...	...	...
2nd Deferred Payment	Apr. 1, 1913	...	...	...
3rd Deferred Payment	Apr. 1, 1914	...	...	...
4th Deferred Payment	Apr. 1, 1915	...	...	...
5th Deferred Payment	Apr. 1, 1916	...	...	...
6th Deferred Payment	Apr. 1, 1917	...	...	...
7th Deferred Payment	Apr. 1, 1918	...	...	...
8th Deferred Payment	Apr. 1, 1919	...	...	...
9th Deferred Payment	Apr. 1, 1920	...	...	...
10th Deferred Payment	Apr. 1, 1921	...	...	...
11th Deferred Payment	Apr. 1, 1922	...	...	...

Interest from April 1st, 1911, at 6 per cent per annum, shall be paid annually, but if interest is not paid within thirty days from the date the same falls due, then in such case it shall be computed for the entire period at the rate of eight per cent. per annum.

All interest accruing prior to the date on which

notice is given to the Purchaser, or his assigns, that the Company is prepared to furnish water under the terms of this contract is hereby waived, and no notice shall be given that water is ready for delivery until 30,000 acre feet of water shall have been impounded in the reservoir to be constructed.

4. The Purchaser hereby covenants and agrees that upon default in the payment of any of the payments above specified, or of the interest thereon, or of any annual charge, toll, or assessment, for the operation and maintenance of the irrigation system, hereinbefore provided for, the Company may declare the entire amount of the principal purchase price for said water rights due, and may proceed either in law or equity to collect the same, and to enforce any lien which it may have upon the water rights hereby contracted, or upon the lands to which said water rights are dedicated, or may at its option proceed to enforce any remedy given by the laws of Idaho to the Company against the Purchaser.

And the Purchaser hereby further covenants that he will and by these presents does hereby grant, assign, transfer and set over, by way of mortgage or pledge to the Company to secure the payment of the amounts due and to become due on the purchase price of the water rights hereby contracted to be sold, any and all interest, and all rights which he now has or which may hereafter accrue to him under his contract with the State of Idaho, for the purchase of the lands to

which the water rights hereby contracted for are dedicated, and further, that immediately upon transfer to him of the legal title to said lands or any part thereof, he will, upon demand, execute to the Company in proper form, a mortgage or deed of trust with power of sale in such form as may be approved by the State Board of Land Commissioners to secure the performance by him of the provisions of this contract, which said mortgage the Purchaser hereby covenants and agrees shall be a first lien upon the lands so mortgaged, superior to any and every incumbrance in favor of any persons whomsoever.

5. The Purchaser agrees that the shares of stock purchased in the Oakley Canal Company, shall be and they are hereby assigned and transferred to the Company, and said Company and its agents are hereby authorized and empowered to vote said stock in such manner as it or its agents may deem proper at all meetings of the stockholders of said Company until not less than 35 per cent of the purchase price of said stock has been paid, as provided in the State Contract.

6. It is agreed that no water shall be delivered to the Purchaser from said irrigation system while any installment of principal or interest is due and unpaid from the Purchaser to the Company or while any toll or assessment is due and unpaid from the Purchaser to the Oakley Canal Company. Water shall be delivered through said irrigation system only during the irrigation season, between April 1st and November 1st of each year. A domestic supply

when necessary outside of the irrigation season shall be delivered under such rules and regulations and under such terms and conditions as shall be determined by said Oakley Canal Company.

7. This contract may be assigned by the Company and thereupon the payments of principal and interest, if so provided, shall be due and payable to the assignee, but the payments for tolls, assessments and charges for the delivery of water shall, unless otherwise provided, be paid by the Oakley Canal Company, and payment thereof may be enforced by it.

8. This contract is made pursuant to and subject to the Contract between the Company and the State of Idaho and the existing laws of said State.

The entry of the above described lands is made subject to the right-of-way of the Milner and North Side Railroad Company, provided it has filed the map of its line with the State Board of Land Commissioners prior to September 1st, 1909. No charge for a water right shall be made for the land taken for the right-of-way. No compensation shall be paid the Purchaser or his assigns, for such right-of-way. The right-of-way shall not exceed one hundred feet on each side of the center line of the track.

9. All notices given to second party by the State Board of Land Commissioners or by the first party hereto or its assigns may be sent to second party by mail to address hereinbefore given.

In Witness Whereof, The parties have hereunto subscribed their names, and the Company has caused

its seal to be affixed the day and year above written in duplicate.

TWIN FALLS OAKLEY LAND AND WATER
COMPANY,

In the presence of:	By.....
	Vice-President.
.....
	Asst. Secretary.
.....
	Purchaser.
.....	By.....
Witnesses.	Attorney in Fact.

State of Idaho,
County of Twin Falls.—ss.

On this....day of, in the year 19..., before me,, a Notary Public in and for said County and State, personally appeared..... known to me to be the person whose name is subscribed to the above instrument and acknowledged to me that he executed the same.

Attest my hand and official seal the day and year in this certificate first above written.

(Seal.)Notary Public.
My commission expires.....

State of Idaho,
County of Twin Falls.—ss.

On this....day of....., in the year 19..., before me,, a Notary Public in and for said county and state, personally appeared..... known to me to be the person whose name is sub-

scribed to the above instrument as the attorney in fact of....., and acknowledged to me that he subscribed the name of.....thereto as principal and his own name as attorney in fact.

Attest my hand and official seal the day and year in this certificate first above written.

(Seal.)Notary Public.

My commission expires.....

I hereby certify that the above is a true copy of the original contract in the above matter.

Attest:.....

Assistant Secretary Twin Falls
Oakley Land and Water Company.

The foregoing contract is hereby approved, and has been registered this....day of....., 19...

STATE BOARD OF LAND COMMISSIONERS,

By.....Register.

Milner, Idaho,, 19...

For value received this contract, principal and interest, is hereby assigned and transferred to..... by authority of a resolution of the Board of Directors of the Twin Falls Oakley Land and Water Company.

TWIN FALLS OAKLEY LAND AND WATER
COMPANY,

By.....

No..... Dated.....19...

CONTRACT—TWIN FALLS OAKLEY LAND
AND WATER CO., with

Endorsed: Filed Nov. 9, 1914.

A. L. Richardson, Clerk.

(Title of Court and Cause.)

SUBPOENA AD RESPONDENDUM.

*The President of the United States of America, to
Vineyard Land and Stock Company, a corpora-
tion, and Utah Construction Company, a corpora-
tion—GREETING:*

You and each of you are hereby commanded that you be and appear in said District Court of the United States, at the Court Room thereof, in Boise, in said District, within twenty days after service hereof, to answer the exigency of a Bill of Complaint exhibited and filed against you in our said Court, wherein Twin Falls Oakley Land and Water Company, a corporation, and Oakley Canal Company, a corporation, are complainants and you are defendants, and further to do and receive what our said District Court shall consider in this behalf and this you are in no wise to omit under the pains and penalties of what may befall thereon.

And this is to COMMAND you, the MARSHAL of said District, or your DEPUTY, to make due service of this our WRIT OF SUBPOENA and to have then and there the same.

Hereof not fail.

Witness the Honorable FRANK S. DIETRICH, Judge of said District Court of the United States, and the seal of our said Court affixed at Boise in said District, this 9th day of November, in the year of our Lord One Thousand Nine Hundred and Fourteen and of the Independence of the United States the One Hundred and 39th.

(Seal)

A. L. RICHARDSON, Clerk.

(Memorandum pursuant to Equity Rule No. 12 of the Supreme Court of the United States: The Defendant is required to file his answer or other defense in the above entitled suit in the office of the Clerk of said Court on or before the twentieth day after service; otherwise the Complainant's Bill therein may be taken *pro confesso*.)

(Endorsed: No. 510. In the District Court of the United States for the Southern Division of the District of Idaho.

In Equity. Twin Falls Oakley Land & Water Company, a corporation, et al., vs. Vineyard Land & Stock Company, a corporation, et al.

Subpoena ad Respondendum.

Returned and filed Nov. 19, 1914.

A. L. Richardson, Clerk.

By E. B. Yarrington, Deputy Clerk.

George F. Sprague, of Twin Falls, Idaho, a competent and proper person, is hereby authorized to serve the within Subpoena on the Vineyard Land & Stock Co., and Hyrum Ricks, of Rexburg, Idaho, a competent and proper person, is hereby authorized to serve the within Subpoena on the Utah Construction Company.

Dated Nov. 9, 1914.

Frank S. Dietrich, Judge.

S. H. Hays, P. B. Carter, Boise, Idaho,
Attorneys for Plaintiff.)

(Title of Court and Cause.)

In Equity—No. 510.

ANSWER OF VINEYARD LAND AND STOCK COMPANY, A CORPORATION, AND THE UTAH CONSTRUCTION COMPANY, A CORPORATION, TO THE BILL OF COMPLAINT.

These defendants, for answer to the bill of complaint on file herein, say:

I.

Admit the allegations contained in paragraphs I and II of said bill of complaint.

II.

Answering paragraph III of said bill of complaint, defendants, and each of them, are without knowledge as to whether or not on the 15th day of June, 1908, or at any other time, Samuel H. Hays made application to the State Board of Land Commissioners of the State of Idaho, under the provisions of section 1615 of the Revised Codes of the State of Idaho, or otherwise, or as to whether or not said Samuel H. Hays proposed to construct certain irrigation works in Cassia County, State of Idaho, for the purpose of irrigating the lands mentioned in said paragraph III, or for any other purpose.

Defendants and each of them are without knowledge as to whether or not said Samuel H. Hays, for the purpose of irrigating the lands described therein, proposed to divert the waters of Goose Creek, in Cassia County, to the extent of 1500 feet per second of time, or to the extent of any other quantity thereof;

or as to whether or not said Samuel H. Hays requested the State Board of Land Commissioners to procure the segregation of said lands, or requested said State Board of Land Commissioners to procure a contract to be entered into between the United States of America and the State of Idaho, under the terms of what is commonly known as the Carey Act, wherein or whereby the United States of America should promise and agree to convey to said State of Idaho said lands when said state should procure the building of necessary works for the irrigation thereof, or otherwise, or at all, or as to whether or not any such proposal and request was received, or after a report by the State Engineer of the State of Idaho, or otherwise, was accepted by said State Board of Land Commissioners.

Defendants and each of them are without knowledge as to whether or not said application was afterwards, or at any other time, made for the segregation of said lands by the State of Idaho, or as to whether or not thereafter, or at any other time, the United States of America entered into a contract with the State of Idaho, wherein or whereby said United States of America promised and agreed to convey to the State of Idaho the said lands upon the state securing the construction of necessary irrigation works for the irrigation of said lands, or otherwise.

III.

Answering paragraph IV of said bill of complaint, defendants, and each of them, are without knowledge

as to whether or not plaintiff, Twin Falls Oakley Land and Water Company, was organized for the purpose of constructing irrigation works in the State of Idaho under contract with the State, or otherwise, or at all.

Defendants and each of them are without knowledge as to whether or not said Samuel H. Hays, with the consent of the State Board of Land Commissioners of the State of Idaho, or otherwise, after making the alleged proposal and request, or otherwise, conveyed to plaintiff, Twin Falls Oakley Land and Water Company, all, or any, of his alleged rights or interests; defendants and each of them are without knowledge concerning any conveyance of property or property rights from the said Samuel H. Hays to said plaintiff, Twin Falls Oakley Land and Water Company.

IV.

Answering paragraph V of said bill of complaint, defendants and each of them are without knowledge as to whether or not on the 12th day of August, 1909, or at any other time, the plaintiff, Twin Falls Oakley Land and Water Company, made or entered into a contract with the State of Idaho under the terms of what is commonly known as the Carey Act, or the legislation of the State of Idaho supplemental thereto, or otherwise; are without knowledge as to whether or not said Twin Falls Oakley Land and Water Company contracted or agreed with the State of Idaho to build or construct said, or any other, irrigation works in Cassia County, State of Idaho.

Defendants and each of them are without knowledge as to whether or not the copy of a contract attached to the bill of complaint and marked "Exhibit A" was ever executed or delivered by the plaintiff, Twin Falls Oakley Land and Water Company, or the State of Idaho.

Defendants and each of them are without knowledge as to the allegation in said paragraph V to the effect that the lands described in said contract and to be irrigated by the works therein described, are as shown and delineated on the plat annexed to the said "Exhibit A."

Defendants and each of them are without knowledge as to the allegation contained in said paragraph V to the effect that in the alleged contract between said Twin Falls Oakley Land and Water Company and the State of Idaho it was provided that the irrigation works should be constructed for the purpose of utilizing the waters of Goose Creek, under permit therein mentioned issued by the State Engineer of the State of Idaho; are without knowledge as to whether or not said State Engineer of the State of Idaho ever issued a permit for 500 cubic feet per second of water of said Goose Creek, or for any other quantity or amount thereof.

Defendants and each of them are without knowledge as to the allegation therein that plaintiff, Twin Falls Oakley Land and Water Company, has completed the construction of said irrigation works; defendants and each of them are without knowledge as to the quantity of water, if any, that was or is re-

quired for the irrigation of the lands mentioned in said paragraph V of said bill of complaint; are without knowledge as to what quantity constitutes the highest flow of said Goose Creek in high water.

V.

Answering paragraph VI of said bill of complaint, defendants say that they, and each of them, are without knowledge as to whether or not on the 27th day of March, 1908, or at any other time, said Samuel H. Hays made application to the State Engineer of the State of Idaho for authority or permission to divert 500 second feet of the waters of said Goose Creek, or any other quantity thereof; are without knowledge as to whether or not the State Engineer of the State of Idaho issued to said Samuel H. Hays permit number 3751, or any other permit; or as to whether or not the said State Engineer of the State of Idaho attempted to authorize said Samuel H. Hays, in the interest of plaintiffs, or otherwise, to divert from said Goose Creek 500 second feet, or any other quantity, of water of said stream, for the irrigation of said lands, or for any other purpose.

Defendants and each of them are without knowledge as to whether or not said, or any, permit was acquired by said Samuel H. Hays in the interest of plaintiffs, or either of them, or at all, or as to whether or not said, or any, permits have been conveyed or transferred to the plaintiff, Twin Falls Oakley Land and Water Company, for the use or benefit of plaintiff, Oakley Canal Company, and its stockholders, or either of them, or at all.

Defendants, and each of them, are without knowledge as to whether or not, on the 10th day of March, 1909, or at any other time, any person made application to the State Engineer of the State of Idaho for authority or permission to divert 1000 second feet, or any other quantity, of water of said Goose Creek for the purpose of irrigating the lands mentioned in said bill of complaint, or for any other purpose; are without knowledge as to whether or not the State Engineer of the State of Idaho at any time issued, or attempted to issue, to the predecessor in interest of the plaintiff companies, or to any other person, a certificate authorizing and permitting, or attempting to authorize them, or either of them, to divert from said Goose Creek 1000 second feet, or any other quantity, of the waters of said stream for the purpose of irrigating said, or any other, lands; defendants and each of them are without knowledge as to whether or not any permit from the State Engineer of the State of Idaho, or any rights acquired or attempted to be acquired thereunder, have heretofore been conveyed to the plaintiff, Twin Falls Oakley Land and Water Company, for the use and benefit of the plaintiff, Oakley Canal Company, and the stockholders thereof, or to either of them, for the purposes mentioned, or for any other purpose.

Defendants and each of them are without knowledge as to whether or not plaintiff, Twin Falls Oakley Land and Water Company, thereafter commenced or completed the construction of the irrigation works provided for in said permits; or as to whether or

not said works are so located as to enable plaintiffs to irrigate said lands; or as to whether or not said works have heretofore been completed; or as to whether or not the State Engineer of the State of Idaho, on the 19th day of July, 1913, or at any other time, issued to plaintiff, Twin Falls Oakley Land and Water Company, a certificate of completion of said works.

Defendants, and each of them, are without knowledge as to whether or not on the first day of June, 1914, or at any other time, plaintiff, Twin Falls Oakley Land and Water Company, made proof of completion of its works; or as to whether or not any proof of completion of works by said plaintiff has been duly approved; or that a certificate of completion of the same will be issued.

Defendants and each of them, are without knowledge as to whether or not said plaintiff, Twin Falls Oakley Land and Water Company, has purchased rights to the use of waters of Goose Creek; or as to whether or not any rights in and to the waters of Goose Creek are held by said plaintiff, Twin Falls Oakley Land and Water Company, for the use and benefit of plaintiff, Oakley Canal Company, and the stockholders thereof, or either of them, or otherwise.

Defendants and each of them deny that, as to these defendants, plaintiffs, or any of said water users, have any priority to the use of, or right to use, any of the waters of said Goose Creek, or its tributaries; that as to whether or not plaintiffs, or either of them, require the entire flow of the waters of said Goose

Creek, and the tributaries thereof, for the irrigation of said lands, or to supply the rights of said plaintiffs, or those claiming under them, these defendants are without knowledge.

VI.

Answering paragraph VII of said bill of complaint, these defendants admit that said Goose Creek above plaintiffs' alleged point of diversion is formed by various small streams and creeks having their sources in the main in the State of Nevada, and to some extent in the State of Idaho, and that these tributaries flow together in the State of Nevada, forming said Goose Creek, and that the said stream flows northward into the County of Cassia, State of Idaho, and empties into the Snake River, in said State of Idaho.

VII.

Answering paragraph VIII of said bill of complaint, defendants are without knowledge as to whether or not in any contract between the State of Idaho and the plaintiff, Twin Falls Oakley Land and Water Company, it is provided or required that said Twin Falls Oakley Land and Water Company should construct irrigation works, or that it should thereafter organize a company to be called the Oakley Canal Company, or that said Oakley Canal Company should after the completion of said works, own, operate, or conduct the same, or the water or water rights used in connection therewith.

Defendants, and each of them, are without knowledge as to whether or not the lands mentioned in

said paragraph were thrown open for settlement by the State of Idaho, or as to whether or not 400, or any other number of, persons made entries upon said lands; or as to whether or not said, or any number of, persons purchased shares of stock in the Oakley Canal Company; defendants and each of them deny that as to these defendants, plaintiffs, or either of them, or their stockholders, are entitled to use the waters of said Goose Creek for the irrigation of said, or any, lands; defendants and each of them are without knowledge as to whether or not said waters are necessary for the irrigation of said lands.

VIII.

Answering paragraph IX of said bill of complaint, defendants, and each of them, say that they and each of them are without knowledge as to whether or not at the time mentioned in said paragraph, or at any other time, either of the persons therein mentioned entered into a contract with said plaintiff, Twin Falls Oakley Land and Water Company, or as to whether or not "Exhibit B" referred to in said paragraph is a copy of any such contract.

IX.

Answering paragraph X of said bill of complaint, defendants admit that defendant Vineyard Land and Stock Company has commenced and is now constructing, and has constructed, canals and ditches in the State of Nevada for the purpose of diverting and using the waters of said Goose Creek and its tributaries; but deny that the purpose thereof is to prevent said Oakley Canal Company, or its stockholders,

from using any of the waters of said Goose Creek to which they, or either of them, are entitled; admit that it is the intention of said defendant to divert, consume and use certain of the waters of said stream before the same reach the irrigation works of said plaintiffs, as is hereinafter more fully set forth; deny that by so doing defendant, Vineyard Land & Stock Company, will prevent the use of any of the waters of said stream to which plaintiffs, or either of them, or the stockholders of said Oakley Canal Company, are entitled; deny that the rights of said defendant, Vineyard Land and Stock Company, hereinafter set forth, are subsequent or subject to the rights thereto of plaintiffs, or either of them, or of the stockholders of said Oakley Canal Company.

X.

Answering paragraph XI of said bill of complaint, defendants say that they, and each of them, are without knowledge as to whether or not the plaintiff, Oakley Canal Company, is commonly known as the operating company, or as to whether or not it is the company whose shares of stock represent water rights of the settlers upon said lands; or as to whether or not said Oakley Canal Company is the company for whose use and benefit said irrigation works were, or were to be, constructed.

Defendants and each of them are without knowledge as to whether or not said plaintiffs, or either of them, or the stockholders of said Oakley Canal Company, are the owners or holders of said, or any, irrigation works, or said, or any water rights

or permits; deny that said plaintiffs, or either of them, or the stockholders of said Oakley Canal Company, or either of them, are entitled to divert or impound any of the waters of said Goose Creek or the tributaries thereof, claimed by the defendant Vineyard Land & Stock Company, as hereinafter more particularly set forth; defendants, and each of them, say that they are without knowledge as to whether or not said waters are required for the irrigation of the lands mentioned in said paragraph XI.

XI.

Answering paragraph XII of said bill of complaint, defendants admit that the defendant, Vineyard Land and Stock Company, is the owner of lands in the State of Nevada, and in the State of Idaho; that it has designated Twin Falls County, State of Idaho, as its principal place of business in said state, and has appointed an agent therein upon whom service of process may be made; and that it has filed the designation of such agency with the Secretary of State of the State of Idaho, and with the County Recorder of said Twin Falls County; that C. B. Channell, of said Twin Falls County, is said agent.

Defendants admit that the defendant, The Utah Construction Company, is the owner of lands in the State of Nevada and in the State of Idaho, and is the owner of nearly all of the stock of the defendant Vineyard Land and Stock Company, but denies that it has control of and directs the operations thereof; admits that said The Utah Construction Company has

designated Rexburg, in the County of Jefferson, State of Idaho, as its principal place of business in said state, and has appointed I. N. Corey as its agent therein, upon whom the service of process may be made; admits that it has filed the designation of such agency with the Secretary of State of the State of Idaho, and that each of said defendants is engaged in business within said state.

XII.

Answering paragraph XIII of said bill of complaint, defendants deny that the plaintiffs, or those claiming under them, are entitled to the use or enjoyment, or the right to impound, any of the waters of said Goose Creek claimed by said defendant, Vineyard Land & Stock Co., as hereinafter more particularly set forth; deny that plaintiffs, or either of them, or those claiming under plaintiffs, or either of them, have any right to the use of said waters, or any portion thereof, prior or superior to that of said defendant; admit that said defendant Vineyard Land & Stock Co., sets up and claims, as hereinafter more particularly set forth, the right to the use of the waters of said Goose Creek, and its tributaries above plaintiffs' point of diversion, superior to the rights of the plaintiffs, and those claiming under them.

XIII.

For further answer to said bill of complaint, defendants say:

1. That at all the times in said bill of complaint mentioned, defendant Vineyard Land & Stock Co., has been and now is the owner of more than 26,000

acres of lands in townships forty-four North, to forty-seven North, both inclusive, in Ranges sixty-six East to seventy East, both inclusive, Mount Diablo Meridian, in the State of Nevada, and that the major portion of the waters of said Goose Creek arise upon and flow through said lands; that about 6,000 acres of said lands are located along and adjacent to said Goose Creek and its tributaries, and, except as hereinafter mentioned, are high and arid and unsuitable for tillage or cultivation, or for the growing of crops without irrigation; that all of said 6,000 acres of lands are so located as to be susceptible of irrigation from the waters of said Goose Creek and its tributaries, and are capable when so irrigated of producing valuable crops of wild hay, alfalfa, grain and vegetables.

2. That said 6,000 acres of lands are the only lands in the State of Nevada capable of being irrigated from the waters of said Goose Creek and its tributaries, and no more than a fair and equitable proportion of said waters would be required for the irrigation thereof; that practically all of said lands are situated within one-half mile from the said Goose Creek and the tributaries thereof, and if the waters of said Goose Creek and its tributaries were diverted to and upon said lands and used for the irrigation thereof, the same, with the exception of small portions thereof, would immediately flow back into the said Goose Creek and its tributaries, and thence down said Goose Creek into the State of Idaho; that defendant Vineyard Land & Stock Company claims the right

to the use of all of said waters of Goose Creek and its tributaries to which the State of Nevada and its citizens and land holders are entitled under a fair and equitable apportionment between said State of Nevada and its citizens and land holders, and the State of Idaho and its citizens and land holders.

3. That long prior to the date of the alleged appropriation of the waters of said Goose Creek and its tributaries by plaintiffs, the predecessors in interest of the defendant Vineyard Land & Stock Co., entered upon said streams and by means of dams, canals and ditches, appropriated and diverted sufficient of the said waters for the irrigation of approximately 2,000 acres of the lands hereinbefore mentioned, and have continuously used said waters for the irrigation of said lands, and for the growing thereon of hay, alfalfa and other crops; that for said purpose defendant Vineyard Land & Stock Co., and its predecessors in interest have diverted and used for irrigation purposes about 40 second feet of the said waters of said Goose Creek and its tributaries; that at the present time the defendant Vineyard Land & Stock Co. has under irrigation about 4,000 acres of said lands, and by means of dams, canals and ditches have appropriated and diverted of the waters of said Goose Creek and its tributaries, approximately 80 second feet of said waters for use upon said 4,000 acres of land, and in growing hay, alfalfa and other valuable crops thereon; that all of said lands are located in the State of Nevada, and are situate immediately adjacent to said Goose Creek and its tributaries, and after said

waters have been so used the same have, with the exception of comparatively small portions thereof flown back into the natural channel of said stream and thence down the same into the State of Idaho.

ANDREW HOWAT,

Residence: Salt Lake City, Utah;

HERBERT R. MACMILLAN,

Residence: Salt Lake City, Utah;

FRANK K. NEBEKER,

Residence: Salt Lake City, Utah;

N. M. RUICK,

Residence: Boise, Idaho;

Solicitors for Defendants.

(Duly verified.)

Service accepted and copy of above answer received this 3rd day of February, 1915.

S. H. HAYS,

Solicitor for Plaintiffs.

Endorsed: Filed Feb. 3, 1915.

A. L. Richardson, Clerk.

By Pearl E. Zanger, Deputy.

(Title of Court and Cause.)

AMENDMENT TO ANSWER.

The defendants, by leave of Court first had and obtained, hereby amend their answer herein by adding thereto the following:

For further answer the defendants say that there is a defect of parties herein in that there are numerous persons not parties to said suit in Nevada, Utah, and Idaho, who have, or claim to have, rights and

interests in and to the waters of said Goose Creek and its tributaries; that the defendants are not informed as to the names and addresses of such claimants.

That complete justice cannot be done as between the plaintiffs and defendants herein, and the title to the waters of said stream cannot be adjudicated completely unless all persons claiming interests as aforesaid in and to the subject matter of this litigation are made parties to this suit.

EDWIN SNOW,
C. A. BOYD,
ANDREW HOWAT,
HERBERT R. MACMILLAN,
FRANK K. NEBEKER,
Solicitors for Defendants.

(Duly verified.)

Service of copy of above Amendment to Answer accepted this 19th day of April, 1915.

S. H. HAYS and P. B. CARTER,
Attorneys for Plaintiffs.

Endorsed: Filed April 20, 1915.

A. L. Richardson, Clerk.

By Pearl E. Zanger, Deputy.

STATEMENT OF EVIDENCE INTRODUCED
BY THE PARTIES TO SAID CAUSE AND
ALL PROCEEDINGS HAD AT THE TRIAL
THEREOF.

(All exhibits incorporated in printed transcript are appended at the end of this statement of the oral evidence.

It was stipulated by the respective parties that the Utah Construction Company owns a large proportion of the stock of the defendant Vineyard Land and Stock Company, and that such ownership constitutes the only relationship that exists between said Utah Construction Company and said Vineyard Land and Stock Company.

Plaintiffs offered in evidence Plaintiffs' Exhibit No. 1, being articles of agreement between the United States of America and the State of Idaho, dated November 13, 1908.

MR. NEBEKER: This is objected to as immaterial and irrelevant.

MR. HAYS: The list of lands is not set forth here, as it is in none of the subsequent papers, it being understood, I believe, between us that as to that point that objection is not made, the specification in detail of the list of lands.

THE COURT: The objection is overruled. In this case as in the other all adverse rulings may be deemed to be excepted to.

Said document was thereupon marked *Plaintiffs' Exhibit No. 1*.

Plaintiffs introduced in evidence Plaintiffs' Exhibit No. 2, being agreement between the State of Idaho and the Twin Falls Oakley Land and Water Company, dated August 12, 1909.

MR. NEBEKER: It is objected to as immaterial and irrelevant.

THE COURT: Overruled.

Said document was thereupon marked: *Plaintiffs' Exhibit No. 2.*

Plaintiffs offered in evidence Plaintiffs' Exhibit No. 3, being application No. 5027, Permit No. 3751 for 500 cubic feet per second of the waters of Goose Creek, also deed from Samuel H. Hays to Twin Falls Oakley Land and Water Company, dated July 14, 1909, covering said permit, also certificate of completion of works under Permit No. 3751, dated July 13, 1913, also bond pursuant to said permit, dated the 10th day of August, 1908.

To which offer defendants objected on the ground that the same were immaterial and irrelevant. And it was stipulated between counsel for the respective parties that no objection would be made to the competency of these documents by the defendants and that no objection would be made by plaintiffs to the competency of any documentary evidence hereafter to be offered by defendants.

Said document was thereupon marked: *Plaintiffs' Exhibit No. 3.*

Plaintiffs thereupon introduced in evidence plaintiffs' Exhibit No. 4, over the objection of the defendants that the same was immaterial and irrelevant. Said exhibit consists of application No. 6317, and water permit No. 4731, for 1,000 cubic feet per second of the waters of Goose Creek, also deed from S. H. Hays, dated May 9, 1914, to Twin Falls Oakley Land and Water Company, covering said water permit, also certificate of completion of works under said permit, dated March 18, 1915, also bond given

pursuant to said permit, dated the 15th day of August, 1909.

Said document was thereupon marked: *Plaintiffs' Exhibit No. 4.*

Plaintiffs thereupon introduced in evidence, over defendants' objection that the same, and each of them, is immaterial and irrevelant, plaintiffs' Exhibits No. 5-a, plaintiffs' Exhibit No. 5-b and plaintiffs' Exhibit No. 5-c, being three forms of contracts for water rights of the Oakley project.

Said Exhibits were thereupon marked: *Plaintiffs' Exhibit No. 5-a; Plaintiffs' Exhibit No. 5-b; Plaintiffs' Exhibit No. 5-c.*

C. C. WILBURN, produced as a witness on behalf of plaintiffs, being first duly sworn, testified as follows:

DIRECT EXAMINATION:

I reside at Oakley, Idaho; am Assistant Secretary of the Twin Falls Oakley Land and Water Company, and Secretary of the Oakley Canal Company.

There have been issued contracts of the character of plaintiffs' Exhibit No. 5-a covering 29,332.02 acres; there have been issued contracts in the form of plaintiffs' Exhibit No. 5-b covering 3,300 acres; in the form of plaintiffs' Exhibit No. 5-c covering 6,500 acres

Plaintiffs thereupon introduced in evidence, over defendants' objection on the ground that the same is immaterial and irrelevant, plaintiffs' exhibit No. 6.

Mr. Wilburn (continuing):

Plaintiffs' Exhibit No. 6 is a map of the Oakley

project. The subdivisions indicated by the round circles are the Carey Act lands that were advertised for sale. The small numbers within the circles are the contract numbers covering Carey Act lands. The colored area in the central portion of the project shown in diagonal lines represents the old patented lands. That is the land covered by contracts such as Plaintiffs' Exhibits 5-b and 5-c. The Carey Act lands shown on Plaintiffs' Exhibit No. 6 were opened for entry on September 20, 1909. The contracts for the acreage I have mentioned were taken between September 20, 1909 and the present time. Most of them were taken in 1909.

C. J. GRIFFITH, duly called and sworn as a witness on behalf of plaintiffs, testified as follows:

DIRECT EXAMINATION:

I reside at Oakley, Idaho. I am water master for the Oakley Canal Company. The water was turned in on the project on the 14th day of May, 1913. I took charge of the project on February 1, 1913.

The irrigation works comprising the Oakley project consists of a dam across Goose Creek immediately above the project where the water is turned out for irrigation. The dam is 140 feet high, built of earth with a core wall, something like 1200 feet on top. The dam is 1200 feet in length and its greatest width at the base is 750 feet. The canal system consists of a diversion from the reservoir through a tunnel about 800 feet long; it divides about a quarter of a mile below the reservoir into the main east side and main west side canals. These canals contour out

to get above the lands to be irrigated. The total capacity of the two canals is a little in excess of 500 second feet, and consists of about 120 miles of canals and laterals. Something like 50,000 acres of land is under the canal and can be served from it.

CROSS EXAMINATION:

Other than the waters of Goose Creek there are two feeder canals, one out of Cottonwood Creek and one out of Birch Creek. The Cottonwood feeder is about 12 miles long and empties into the reservoir immediately above the dam. The Birch Creek feeder is 7 miles lang and empties into the reservoir about a quarter of a mile above the dam on the east side. These, with Trapper Creek, constitute all of the water flowing into the reservoir, with the exception of Goose Creek and its tributaries. Trapper Creek is, I presume, about one-fifth the size of Goose Creek; Birch Creek is about half the size of Trapper Creek, but it has decreed water out of it to the extent of about 16 second feet. Cottonwood Creek is larger than Birch Creek, probably about half the size of Trapper Creek. This has decreed water out of it to the extent of 35 second feet which we do not get.

RE-DIRECT EXAMINATION:

Birch Creek empties into Goose Creek naturally in section 29 (indicating on map the location of Birch Creek and Cottonwood Creek). The map isn't long enough to show Trapper Creek. It comes in about the middle of the reservoir site. The reservoir is in the neighborhood of six miles long.

Plaintiffs thereupon introduced in evidence Plaintiffs' Exhibit 7 for the purpose only of showing the general location of the various points indicated on the exhibit.

Mr. Griffith (continuing) :

Plaintiffs' Exhibit No. 7 shows with substantial accuracy the location of the Oakley project. It also represents approximately the location of some of the property and ditches of the defendant's company in the State of Nevada. This map shows the general location of the water shed.

In the season of 1913 there was 11,590 acres in cultivation on the Oakley project, on both the old and the new lands. In the season of 1914 there was 17,234 acres. We estimate that in the present season there will be about 3,000 acres additional in cultivation, making a total of something over 20,000 to 21,000 acres. By old lands I mean the lands that received the waters of Goose Creek and its tributaries prior to the time the reservoir was built.

SOL WORTHINGTON, duly called and sworn as a witness on behalf of plaintiffs, testified as follows:
DIRECT EXAMINATION :

I am a farmer and merchant and have resided at Oakley, Idaho, for thirty years. I am familiar with the negotiations which led up to the construction of the Oakley irrigation project, and particularly the negotiations with settlers owning lands and old water rights under that project. I was chairman of the committee chosen by the people to negotiate the merger. The committee was formed in 1909, prior to the

making of the contract with the State for the construction of the works.

MR. HAYS: Please state precisely what that committee did in order to bring about the arrangement.

MR. NEBEKER: We object, if the Court please, as immaterial and irrelevant, and on the further ground that it appears that the contracts were entered into which consummated these negotiations inquired about here, and those contracts constitute the best evidence.

MR. HAYS: This is just leading up to that arrangement.

THE COURT: I think I will let him state very briefly what was done, and then you can go into details—upon the suggestion that it is preliminary only. It can't be of any substantive value. You may proceed, Mr. Worthington, and state briefly.

Mr. Worthington (continuing):

The committee's labor was to ascertain the amount of land that they had in actual cultivation and the purpose was to acquire an exchange from the reservoir of sufficient water to irrigate the lands that we had already under actual cultivation. We ascertained the area of the patented lands, as well as all lands under cultivation. There were 6,500 acres of cultivated lands and approximately 12,000 acres of patented lands. On Plaintiffs' Exhibit No. 6 the 12,000 acres of patented land is represented by those blocks having diagonals. Plaintiffs' Exhibit No. 5-c is the form of contract entered into with the people who had irrigated lands on the Oakley project. Contracts were issued in the form of 5-c at \$40.00 per acre.

The people owning water entered into an agreement to transfer their rights to the Twin Falls Oakley Land and Water Company in the form of Plaintiffs' Exhibit 8.

Plaintiffs thereupon offered in evidence Plaintiffs' Exhibit No. 8, to which offer defendants objected as immaterial, and irrelevant, and so far as it purports to show the conveyance of any water rights or agreement to convey any water rights to plaintiffs, on the ground that it is not the best evidence.

MR. NEBEKER: You don't contend that by this contract any water rights was conveyed to the company?

MR. HAYS: We will take that up later, but it was under this form. Of course, this does not convey anything; this is simply a blank form, but it was under these forms that conveyances were made later. We will furnish you a list, as I suppose it was understood, showing these conveyances.

MR. NEBEKER: That is correct. Then we will withdraw the latter part of the objection, the part as to its not being the best evidence.

A certain document was thereupon marked: *Plaintiffs' Exhibit No. 8.*

THE COURT: Overruled; it may go in.

Mr. Worthington (continuing):

That agreement was followed by conveyances of the water rights, in the form of Plaintiffs' Exhibit No. 9.

This exhibit was thereupon offered in evidence over the objection of defendants that the same was immaterial and irrelevant.

A certain document was thereupon marked: *Plaintiffs' Exhibit No. 9.*

Mr. Worthington (continuing):

The people on what may be called the old lands, indicated on Plaintiffs' Exhibit No. 6 by the diagonal white lines, obtain water at present from the Goose Creek reservoir under the terms of these forms of contract.

BENJAMIN HOWELLS, duly sworn as a witness on behalf of plaintiffs, testified as follows:

DIRECT EXAMINATION:

I have resided at Oakley, Idaho, for thirty years. I am a practicing attorney there and ranching some. I have some knowledge of the negotiations relating to the transfer of what might be called the old water rights. Most of those deeds and contracts were made and signed in my office. Prior to that time the waters of Goose Creek were handled by a water master under a decree of the District Court of our county. The decree in the case of Martin Okelbery, H. M. Thatcher, et al., against C. H. Karlson and others, in the District Court of the Third Judicial District of the Territory of Idaho, in and for Cassia County, and dated the 10th day of September, 1886, was the first of these decrees for the waters of Goose Creek. The decree in the case of Mary H. Botzet against George Chapin, and others, in the same court, dated the 19th day of March, 1892, was the second decree.

MR. HAYS: We offer in evidence certified copies of those decrees. The defendants in this case were not parties to those decrees.

Q. (By Mr. Hays.) I will ask you one further question, Mr. Howells. Were all or substantially all of the water users from Goose Creek, in what might be called the Oakley district, that is, from the present site of the dam of the company northward, parties to this suit, the last one?

A. The last suit, I think, most of the water users were parties to the last decree, the last suit.

MR. NEBEKER: Just a moment. I move to strike out the statement of the witness that the parties to this suit were water owners, on the ground that it is giving a conclusion of the witness.

MR. HAYS: Well, water users then.

THE COURT: You mean by owners the water claimants?

A. Yes, sir, claimants.

MR. HAYS: Q. You also mean the people who actually used the water, Mr. Howells?

A. Yes, so far as I know.

MR. NEBEKER: We move to strike that out, if the Court please, as not the best evidence, and giving the conclusion of the witness.

MR. HAYS: If the Court please, that it not necessarily an opinion.

THE COURT: I think I will let it stand.

MR. NEBEKER: All that I desire, if the Court please, at the present time is that the record will not be bound by the statement of Mr. Howells here as to the establishment of these rights. I don't desire to delay the putting in of this testimony so long as it isn't claimed—

THE COURT: The only purpose of this testimony, as I understand, is to get the information that most of the persons who claimed or used waters from the stream were parties to this suit.

MR. HAYS: That is true.

THE COURT: Of course, the matter of use is a question of fact. Now, if he knows there were not many other users or claimants, he may so state.

MR. NEBEKER: I think the negative of it may perhaps be competent, but for him to testify that these persons who were parties to this decree were water users might raise the presumption and make a prima facie case of ownership, and I don't know whether it is the intention to put in for that purpose.

THE COURT: It won't go very far, of course, in establishing a right, of course, because he doesn't indicate the amount they used or when they began to use it, or the method of use.

MR. HAYS: Q. Were you generally familiar with conditions there?

A. At the time of these decrees?

Q. Yes.

A. Yes, I was more or less acquainted with the conditions.

MR. HAYS: I now offer in evidence the decrees mentioned.

Said document was thereupon marked: *Plaintiffs' Exhibit No. 10.*

MR. NEBEKER: These are objected to as immaterial and irrelevant, if the Court please, and on the further ground that it is not shown that any of

the parties mentioned in the decrees were the owners of any water rights at the time the decree was rendered, and particularly as to being irrelevant and immaterial as to either of these defendants, for the reason that they were not parties to this action. The objection—

THE COURT: Are there two exhibits, 10 and 11?

MR. HAYS: No, they are bound together under one cover.

MR. NEBEKER: The objection goes to Exhibit 10, including both decrees.

THE COURT: I am not sure that I understand the nature of your objection, Mr. Nebeker. I am inclined to think the decrees are both relevant and material. Whether or not they will be competent against your client is another question. They relate to a very material matter.

MR. NEBEKER: Our objection goes to the point that they would be, I take it, immaterial and irrelevant as to us until it is shown that the parties to that suit, that is, shown as to us that the parties to that suit were the owners of water rights. That is what I had in mind in making the objection. I don't object to the fact that the original decrees are not presented here.

MR. HAYS: Or the pleadings, I presume?

MR. NEBEKER: Or the pleadings. We do object to these exhibits, and each of them, as to their competency as to us in all respects except that we do not object to them on that ground, as being certified copies instead of the original decree, and the

pleadings upon which the decrees were taken, if the Court please.

THE COURT: Upon what theory can I receive them upon this objection.

MR. HAYS: If the Court please, they are necessarily a part of our title. We obtained the ownership of these various water rights, and we obtained them through the medium—from the parties or their assigns who were parties to this suit and this decree. We will have to follow it up later with other proof, as I take it.

THE COURT: You mean you simply offer them for the purpose of identifying the descriptions in your deeds?

MR. HAYS: No, we do not do that, if the Court please. We offer this as a part of the history of the transaction through which we obtained our water rights, and as a part of our chain of title. I do not understand that they object to any informality on the part—so far as not having the pleadings here, or the findings, or anything of that sort.

THE COURT: What I am trying to get at is, whether or not you claim the decree is proof of your water right which you now claim as against the defendant company.

MR. HAYS: Possibly it might not be, but we have to show through what source we obtained our rights.

THE COURT: Suppose there had never been any decrees?

MR. HAYS: Then we would have to show the facts from the users of water.

THE COURT: That is what I am trying to get at. Now, do you contend that with the decrees in you will not have to show the facts.

MR. HAYS: No, I don't claim that. I will still have to show other facts as well. This decree, of course, wouldn't bind the other parties.

THE COURT: With that admission, the decrees I think may go in. I hardly see how they will serve any useful purpose, however, other than the identification of the description in your deeds, if reference, is made to the decrees, as I infer it is from these forms you have offered in evidence.

MR. HAYS: Yes.

THE COURT: But if they are not evidence of the appropriation of water then they are not evidence of any right.

MR. HAYS: If we later prove that they had some right or cultivated some land, then the title may go through perhaps. If we fail to do so conditions might be different.

MR. NEBEKER: Then do I understand, if the Court please, that they are not offered as substitutive proof of the existence of any water rights in the parties to the suits in which those decrees were entered, or any ownership?

MR. HAYS: They are only offered as a part of our chain of title, which we propose to take up, but you were not parties to that suit. Therefore, as we understand it, you would not be bound by that decree.

MR. NEBEKER: And you don't claim that they constitute any evidence of ownership of water in the parties to the decree?

MR. HAYS: That may or may not be. That may or may not be, as will hereafter appear. It is just simply, one person has a deed to a piece of land. I can't offer only one deed at a time. I have to follow my chain of title down. I don't exactly understand—

THE COURT: I think Mr. Hays has a different conception of the function of the decree from what I had in mind. You seem to regard it as one link in the chain of title. I don't understand how a water decree can be a link in a chain of title. A decree does not confer anything upon the person to whom the decree goes that he didn't already have, presumably. It simply confirms in him a right which he claims already to have.

MR. HAYS: And it may fix, as between him and the other parties to the decree, the amounts.

THE COURT: It would of course as to the other parties, that is true.

MR. HAYS: It is in that, if the Court please, as I understand it, that it may become a chain of title.

THE COURT: I think I will let the exhibit go in, upon the express statement of Mr. Hays that he does not claim that this is binding in any way upon the defendant companies. So far as they are concerned at least, you will have to show the existence of a water right the same as if a decree had never been entered, so I think with that understanding you may proceed, and no one will be misled.

Mr. Howells (continuing):

Plaintiffs' Exhibit No. 11 appears to me to be an itemized list of the parties signing the deeds and

the several different inches or dates of water which the people were conveying to the company.

Plaintiffs thereupon introduced in evidence Plaintiffs' Exhibit No. 11, for the purpose only, as stated by counsel for plaintiffs, as showing a summary of all deeds made by claimants of the waters of Goose Creek to the company, and for the purpose of showing that said deeds conveyed to the company only such waters as were owned by the claimants at the time the deeds were made.

Mr. Howells (continuing) : Under the decree there was a conveyance of so much Thatcher water, as they called it, and so much Chapin water and so on, and Plaintiffs' Exhibit No. 11 shows the list of conveyances purporting to be made under the decree. Plaintiffs' Exhibit No. 12 is a map showing the patented lands, or old irrigated lands, in the Goose Creek Valley at the time of the organization of the new project in 1909. I think I can designate on this map the ditches then existing in the Oakley district. The points of diversion and the names were as follows: The point of diversion of the two main canals or laterals is shown in the lower part of Plaintiffs' Exhibit 12; the one running to the right or east is known as the east canal, and the one running to the left or west is known as the west canal. The Hopkins or Haywood ditch is the second ditch on the east side and lower down. It runs through section 8, township 14 south, range 22. The second ditch on the west side of Goose Creek and lower down is the Worthington-Sevier and Cummins ditch, running

down through to irrigate a portion of section 8, same township and range. Then the next ditch I notice on the map and having its source east of Goose Creek and further down, or north, is the Keplinger & Birch ditch, known in the early days there and mentioned in the decree. The next ditch I notice on the map further down on the west side of Goose Creek, and mentioned in the decree, is the Ferguson & McBride ditch. Further on down on the east side is what is known as the Tolman & Whittle ditch mentioned in the decree. Further down on the west side is what is known as the Wells ditch mentioned in the decree. Pretty well below the center of the old lands there is a dam and ditch running from the west side of the creek known as the Tolman ditch mentioned in the decree. Further on down the project and on the west side again is what is known as the Green & Homer ditch mentioned in the decree. I made a mistake as to the Wells ditch. It is further on north, running out of the east channel of Goose Creek after it spreads or forks, down near the center of the old irrigated project, and goes into what we call the island in between the two streams. The last ditch taken out is the Carson-Copper ditch. The early rights, or those which are dated furthest back in the decree mentioned, is on down some eight or ten miles below these last ditches, in township 11, range 22. They are known as the Thatcher ditch, Chapin ditch, Dunn ditch, Botzet ditch, and those names of parties mentioned in the decree. The Tinkrel ditch was further on down. It was taken out of Goose Creek

just a short distance above where the present town of Burley is situated.

O. * * * What, if you know, Mr. Howells, what was done by the people up in the vicinity of Oakley towards acquiring the rights of those people that were further north?

MR. NEBEKER: That is objected to as calling for a conclusion, and immaterial and irrelevant and incompetent.

MR. HAYS: Mr. Nebeker, that would, of course, involve only a conveyance between our own people, and I presume would not affect your rights.

MR. NEBEKER: If it isn't offered for the purpose of showing that any water rights existed—

MR. HAYS: Not at the present time.

MR. NEBEKER: —in the persons to whom you refer, I have no objection.

MR. HAYS: Not at the present time. My purpose is this, to show that the people up around Oakley purchased from the people further north their rights, and used whatever rights they had up in the vicinity of Oakley, and distributed them among themselves.

MR. NEBEKER: Whatever rights they had?

MR. HAYS: Whatever rights they had.

MR. NEBEKER: If any.

MR. HAYS: Yes. Later on we will show what those rights were, possibly.

Mr. Howells (continuing): As I remember in the spring of 1889 H. C. Haight, now dead, negotiated a deal for the Thatcher water, which was then being

used away down the valley at the lower end of the settlement, and brought the water up to Oakley settlement and distributed it, half an inch, or an inch, or an inch and a half, to the people who lived in the vicinity of Oakley, for the purpose of saving the trees and gardens.

MR. HAYS: This is just part, Mr. Nebeker, of the history of the locality.

MR. NEBEKER: You don't claim that it has any tendency to prove title?

MR. HAYS: Not until later. We hope to claim it later. We hope to make our claim through these rights.

MR. BOYD: In other words, you expect to establish the Thatcher rights later?

MR. HAYS: Yes. I am simply trying to avoid the introduction of a large mass of documentary evidence, and things of that sort.

MR. HAYS: Q. Were any of the other rights further north purchased?

A. Well, not in the vicinity of the Thatcher water.

MR. NEBEKER: If the Court please, I don't want to obstruct the trial of this case in any way; I would like to expedite it. I don't ask that this documentary evidence shall be produced here, but these questions all involve the assumption that there were water rights, and I fear that we will soon have the record charged with testimony of that character in such a way that it will be difficult for us to ascertain if some proof has not been made in this way of the existence of rights.

THE COURT: Counsel has expressly disclaimed that and of course he will be held to his disclaimer.

MR. NEBEKER: Well, with that understanding, I have no objection.

(Last question read.)

A. Yes, in the vicinity of where the Thatcher water was used. Mr. Howells (continuing): A short time after the Thatcher water was purchased by Mr. Haight, parties made arrangements and bought the Chapin water, a good deal in the same manner, and divided it among the several people up the valley in the vicinity of Oakley, Marion and Island, little settlements shown upon the map. The Tatro claim was purchased and distributed in the same way and the Dunn water and the Botzet water as mentioned in the decree. All of the water mentioned in the decree that were formerly claimed at the lower end of the valley was purchased by different parties and moved up the valley in the vicinity of Oakley and Marion.

MR. HAYS: Mr. Nebeker, as I understand it, our stipulation is to this effect, that we are the successors in interest of whatever rights those people had under that decree?

MR. NEBEKER: That is my understanding, General, yes.

MR. HAYS: So that we may confine our proof to the rights themselves?

MR. NEBEKER: To the rights themselves.

MR. BOYD: In other words, that we are the owners of whatever rights we have on our side, and that

you are the owners of whatever rights these people may have had on your side.

Mr. Howells (continuing): I first went to the vicinity where Oakley now is in 1878. I was there in 1880-81 and 88. In 1888 I attempted to distribute the waters as water master of Goose Creek. It was the driest season I have seen in that country. My duties took me over the various ditches. As far as I remember the ditches shown on Plaintiffs' Exhibit No. 12 were in existence at that time. The first decree on Goose Creek was in 1886. In 1888 I distributed the waters on Goose Creek over most all of the country shown in green on Plaintiffs' Exhibit 12. I would approximate the acreage at 6,000 to 6,500 acres; perhaps not all irrigated that year, but as much as could be with the supply of water we had. The supply was very scarce and was not sufficient to cover the entire area. All of the flow of Goose Creek was diverted at the points shown in Plaintiffs' Exhibit 12. I think every ditch was used more or less that season. I believe in 1878 there was 300 acres farmed in the vicinity of Oakley and on north down the valley at what was known as the Thatcher place. In 1879 the acreage was I think probably 400 acres. In 1880 it was increased; people were coming into the country and developing it, in small tracts at first and then increasing, and along as the settlement grew older more people came in. The chief influx of population was in 1881 and 1882. Up to the time of the influx of people in 1881, there would probably be six or seven hundred acres in cultivation.

The location and capacity of the ditches were virtually the same in 1909 as in 1888. There was very little change in the area of irrigated land between the two years. The irrigation of the 6500 acres was about the same between 1888 and 1909 and down to the present time. The waters of Goose Creek and its tributaries were used by these farmers from year to year. In 1888 and subsequent years many of the ditches were able to carry much more water than we had for them. The conveyance to the Twin Falls Oakley Land and Water Company purported to convey 8,890 some odd inches, as I remember it. That is substantially what the totals would be from that blue print. There was about 6500 acres effectively cultivated. I cannot say what the difference between 6500 and 8,890 inches represented, other than perhaps the 8,890 odd inches of decreed water indicated that the parties making the deal thought some of the water was of little value by reason of it being only flood water or high water. Prior to the construction of the reservoir system the people began irrigation as soon as possible in order to get their hay lands, alfalfa lands, and so on, irrigated up as early as possible in the spring.

It was stipulated between counsel that the Oakley lands were all originally arid in character and that they require one and one-half acre feet, as provided for in the State and Settlers' contracts for their proper irrigation.

C. J. PARKINSON, duly sworn as a witness on behalf of plaintiffs, testified as follows:

DIRECT EXAMINATION:

I reside at Burley, Idaho. I first went to Oakley on the 13th day of March, 1882. I was there during the years 1883, 84, 85, 86 and 87. In 1882 and 83 I should judge there was possibly 1500 to 2000 acres under cultivation. There was not much difference in the ditches and the old claims between 1882 and 1883 up to 1900. The ditches were practically all out the same as at the present time. That is they were already built. There were two canals taken out after 1883. I think they were started in 1883. Two canals, one on the east side and one on the west side of the creek, were taken out under what is called the present reservoir in 1883. There were other old ditches built before that time. They appear marked in red on Plaintiffs' Exhibit 12.

CROSS EXAMINATION:

I had nothing to do with the construction of any of the ditches. I helped to construct one ditch onto a piece of land in 1882, but outside of that I had nothing whatever to do with the construction of the ditches. The last four years was the only time that I have had land in that vicinity. I rented some land before that time. Oakley was my home. I was not engaged altogether in farming; I was riding part of the time. I should judge there was 1500 to 2000 acres under cultivation at Oakley in those early years. I was there right along during threshing. I have been over the ground. I did not look at it for the purpose of determining how many acres there were. I could not say how many pieces of land I have meas-

ured. The ditches that were constructed in 1883 were larger than the ones constructed prior to that time. I couldn't tell how much larger they were. They were calculated to carry sufficient water to irrigate the land, but I cannot tell the difference in size.

C. J. GRIFFITH, heretofore duly sworn as a witness on behalf of plaintiffs, being recalled, testified as follows:

DIRECT EXAMINATION:

I visited the Upper Goose Creek country in 1913 and 1914. Plaintiffs' Exhibit No. 13 is a map or diagram representing in a general way the Upper Goose Creek district.

Plaintiffs thereupon offered in evidence Plaintiffs' Exhibit No. 13.

Mr. Griffith (continuing): Plaintiffs' Exhibit No. 14 is a picture taken of the Rancho Grande, in the south end, looking up the valley. It was taken on the hill immediately south of the old Grande Ranch, on the east side of the stream.

Plaintiffs thereupon offered in evidence Plaintiffs' Exhibit No. 14.

Mr. Griffith (continuing): It was taken August 26th or 27th, 1914. There is a ditch along the right hand side of the picture, where there appears to be a row of willows. There are groups of willows down through the foreground and to the left of the picture. Goose Creek splits up above there and there is two channels; one channel I believe they call a slough. The level land in the foreground they have

a natural grass which they cut for hay, most of it. Plaintiffs' Exhibit No. 15 is a photograph of part of the Grande Ranch looking to the north and mainly that part showing where some new development has taken place. The ground was in grain the past two years. This land is indicated in red at the south end of the Grande Ranch on the west side of the creek on Plaintiffs' Exhibit No. 13. This photograph was taken August 26th or 27th, 1914. The ground at the foot of the hill, at what might be called the middle of the picture, is the same ground as is marked in red on the west side of the river at the Grande Ranch.

Plaintiffs thereupon offered in evidence Plaintiffs' Exhibit No. 15.

At the request of counsel for plaintiffs the witness thereupon marked with a cross on the photograph the place representing the ground marked in red upon Plaintiffs' Exhibit No. 13.

Mr. Griffith (continuing): The ground marked in red on the west side of the stream on plaintiffs' Exhibit No. 13 was apparently new development when I first visited Rancho Grande in 1913. It was in grain and I couldn't say that it was new development, as I had never been there before. I would estimate it to be about 30 acres. When I visited the Wine Cup Ranch on the 20th, 21st and 22nd of June, 1913, I found the land indicated here in yellow, mainly on the east side of the creek, to be apparently meadow land. There was no special preparation made to irrigate the ground in the way of

old ditches. There was apparently a new ditch that had been made a little higher up on the hillside from which some water was being turned onto this meadow. In 1913 there wasn't as much development on that land as there was on the later trips. I presume, as I recall it now from my reports, there was about 40 or 50 acres in this land here, mainly on the east side of the creek. There was a ditch there taken out of Goose Creek above what is commonly called the Narrows, and came down and skirted the hill and followed the contour line down around above the grain. I would say the ditch was about a mile long. I didn't measure it. About 40 or 50 acres was under cultivation under it in 1913. It was apparently a new ditch. After you leave the turn of the river here there was apparently a new ditch that took a contour line on the north side of the creek and extended down for a distance of about two and a half miles. No sage brush was cleared under it and at that time no evidence of any water being run at all. There was no cultivation. That area is marked in blue on the map. However, in the area marked in blue there is another diversion taken out of Goose Creek on the south side, apparently a new ditch, a mile and a half long and up to that time no diversion had been made in that ditch. There was no dam in the creek at that time. There was no cultivated land under it. Up Little Goose Creek another ditch was made and some land cleared, but nothing was under cultivation. That is the development shown in red in section 25. There was no old cultivated lands there

at all. The character of the herbage was sagebrush and greasewood. I have pictures of section 25, taken in 1914. Plaintiffs' Exhibit No. 16 was taken about August 25th or 26th of that year, and represents the north line of the tract and part of the fields here, showing the grain growing on it, and the ditch as it was then built. There was no cultivation on this land that I know of in 1913. It was cultivated for the first time in 1914. Prior to that time it had been in sage brush.

Plaintiffs thereupon offered in evidence Plaintiffs' Exhibit No. 16.

Mr. Griffith (continuing): In that tract in section 25 I estimated there was about 75 acres in cultivation as new development under that ditch. Plaintiffs' Exhibit No. 17 is a photograph taken from the south side of the valley, looking almost directly north, and shows the ditches on both sides of the valley.

Said exhibit was thereupon offered in evidence.

Mr. Griffith (continuing): Plaintiffs' Exhibit No. 18 is a view of the diversion of this south side ditch in this location, that is in section 19, out of Goose Creek. It shows the head of the ditch.

Said exhibit was thereupon offered in evidence.

Mr. Griffith (continuing): Plaintiffs' Exhibit No. 19 is a photograph representing practically what I would take to be the head of this ditch on the north side of Goose Creek, taken out in about section 19. There are some 500 acres under these new ditches in sections 19, 20 and 21, 46, 69. None of that land has been cropped. Water has been diverted onto it

in small quantities. I haven't any pictures of the Old Springs Ranch. I have some of new developments there. Plaintiffs' Exhibit No. 20 is a photograph representing the diversion of this new ditch leading out onto the new land. It shows the creek, the dam in the creek there, and the water being diverted. The photograph was taken August 26th or 27th, 1914. There had been no cultivation under that canal.

Plaintiffs thereupon offered in evidence Plaintiffs' Exhibit No. 20.

Mr. Griffith (continuing): That canal was built when I was first up the creek in 1913. I don't know when the canals in sections 19, 20 and 21 were built. They were there the last of June, 1913. The canals in section 15, shown in the picture were all new canals. Plaintiffs' Exhibit No. 21 is a picture of the land under this ditch here and shows the general character of the land in section 15. That is the ditch you see running through the middle of the picture. Plaintiffs' Exhibit No. 22 is a picture of the Wine Cup ranch, taken from the extreme north end, looking south directly down over the country.

The witness thereupon marked a cross on the picture indicating the south end of the area marked in red on Plaintiffs' Exhibit No. 13.

Mr. Griffith (continuing): There is quite a little difference on the two sides of the creek. Plaintiffs' Exhibit No. 23 is a photograph representing the Wine Cup ranch and the break of the canyon into the flat and is the extreme upper end of the Wine Cup,

looking from the east side to the west side. The new development on the Grande Ranch is represented in red on Plaintiffs' Exhibit No. 13. There are approximately 30 acres of it. It was in cultivation when I first saw it in 1913. I estimate the new development on the Wine Cup, that is, what appears to me to be new development, to be from 150 to 160 acres; that is the upper end of the Wine Cup, marked in red. Going to the land in section 25, there was about 75 acres in crop last year. There is, I presume, 115 or 120 acres under ditch at the present time. That was in crop for the first time last year. Going to the lands in sections 19, 20 and 21, 46 north, 69 east, on the north side of the river, the land that could be covered from the ditch that is built there now is about 400 acres. None of it is in cultivation. The land that could be watered from the ditch is, I presume, 100 acres. I don't know when that ditch was built; it was there in 1913. Going to the Spring Creek ranch, it would be a little hard to estimate the amount of land that could be watered from that Spring Creek ditch, on account of the possible extension and watering from the end of the ditch that is built there now. The land that is now covered, without any further ditching, I presume would be 75 or 80 acres, but it is capable of quite an extension. There is no crop there; it is in sage brush. Going down to the area in sections 24 and 19, opposite the mouth of Hardester Creek, there is a new diversion taken out of Jay Creek, which runs down fully a mile on a contour. The sage brush was not cleared

last time I was there in the fall of 1914. All of the water has been diverted a part of the time at least, and run into the sage brush. In regard to the new development in sections 17 and 19, and north of Hardester Creek in 47, 7, there is what appears to be a new ditch that was there the first time I was up the creek. However, there was no diversion made in June, 1913, but upon a later visit that year a diversion was made and there was some water running in this ditch, wasting from the end or from the breaks in the ditch itself. The land is all sage brush and up to September 1st, 1914, the brush was not cleared and no development on it. This area is in the neighborhood of 200 acres. It is rather narrow in a good many places and hard to estimate without a survey.

CROSS EXAMINATION:

In speaking of new development I have reference to the appearance of the ditches I saw in 1913. I could tell where new ditches had been constructed and where old ditches had been cleaned out. I would be willing to state that all of the ditches I have spoken of as new ditches have not been constructed over two or three years; that is from the appearances as I saw them. I found four old ditches on the Rancho Grande. On the Wine Cup field I found partly in the slough, on this slough, on this side, right in there, apparently an old ditch; lower down it was apparently a new ditch. Outside of a couple of sloughs I only saw one ditch that I could say was an old ditch on the Wine Cup field. I couldn't say whether the

sloughs had been used as a part of the system of irrigation. I saw one dam in a slough down about here (indicating on map). It apparently was the head of this ditch on the north side of Goose Creek around the turn. I saw very little timothy on the Rancho Grande or the Wine Cup. I saw no alfalfa. I made no measurements for the purpose of arriving at a conclusion as to how many acres have been irrigated on the Rancho Grande or the Wine Cup field. There was an old meadow on Jay Creek, but there no ditches built to it. It was simply a swamp. There were no ditches in evidence. There was a well defined channel extending from Jay Creek into Goose Creek. I walked up the channel. The meadow near the mouth of Jay Creek contains about two or three acres. I did not see any old ditches on Spring Creek. The old ditches were up above where I was. I simply saw the new ditch and didn't go up to the old ranch. There was some water in the Jay Creek ditch the first time I was there. That is in the creek itself. The diversion of Jay Creek was not made in 1913 when I was there. What water there was was running in the old channel down to the creek, but on a later date that creek was dry; the diversion was made.

C. J. PARKINSON, heretofore duly sworn as a witness on behalf of plaintiffs, being recalled, testified as follows:

DIRECT EXAMINATION:

I was on the Wine Cup in September, 1886. At that time there was land irrigated only by high wa-

ter. There were no ditches on the place. The same was true of 1887, 1888 and 1889.

CROSS EXAMINATION:

In the years I called counsel's attention to I was up and down the creek riding. I was working for the Jews Harp Company. The property of that company is about 20 or 24 miles below the Rancho Grande. When I saw the Wine Cup it was while I was riding the range and passing by. The observations I made in these years to see whether there was any ditches was just riding through it. I think I would not have any interest in that matter at that time. It didn't make any difference to me whether there were or were not ditches. I had no occasion to make any observations for that purpose. There were not any ditches that I saw at that time. I mean that in riding casually by those ranches I didn't see any ditches.

RE-DIRECT EXAMINATION:

In riding by I could see all the ditches there were. I would ride up along the creek through the meadow land.

C. A. McCLELLAN, a witness duly sworn on behalf of plaintiffs, testified as follows:

DIRECT EXAMINATION:

I reside at Oakley; am employed as engineer and hydrographer for the Twin Falls Oakley Land and Water Company; have been in the engineering business since August, 1904; have been engaged in the measurement of water specifically since 1910. I am familiar with the records kept by the company joint-

ly with the Government with respect to the flow of Goose Creek, Birch Creek, Cottonwood Creek and Trapper Creek. The total discharge for Goose Creek for 1914 was 64,740 acre feet. That includes Goose Creek and Trapper Creek combined. The guage at which these measurements were made is about 12 miles above the town of Oakley, and probably 30 miles north of the Grande ranch. In 1914 we received from the Birch Creek feeder canal 1,852 acre feet; from the Cottonwood feeder 2,780 acre feet, making a total of 4,632 acre feet, outside of what we received from Goose Creek and Trapper Creek. From Trapper Creek we received 13,381 acre feet and from Upper Goose Creek 59,359 acre feet. In 1913 we received from Trapper Creek 10,785 acre feet, and from Upper Goose Creek 40,130 acre feet. Water was received from no other source. In 1912 we received from Trapper Creek 14,200 acre feet; from Upper Goose Creek 59,800 acre feet, total 74,000 acre feet, and nothing from Birch or Cottonwood Creeks. In 1911 the total from Trapper and Goose Creek together for that period was 49,170 acre feet. Nothing was received from Birch or Cottonwood Creek. For the years 1909, 1910, 1911, 1912, 1913 and 1914, the average flow of Goose Creek for the month of January is 53.3 second feet; February 90.7 second feet; March 150.5 second feet; April 158.9 second feet; May 202.3 second feet; June 124.8 second feet; July 54.3 second feet; August 26.8 second feet; September 26.9 second feet; October 32.3 second feet; November 41.1 second feet; December 39.6 second feet.

Plaintiffs thereupon rested.

E. C. McCLELLAN, duly sworn as a witness on behalf of defendants, testified as follows:

DIRECT EXAMINATION:

I have followed the occupation of surveying since 1878, principally in Nevada, and some in Utah, Idaho, California and New Mexico. I first visited the Rancho Grande in 1883. I was on Goose Creek in that section in 1881. The first time I was there I was assisting in sectionizing the country under Government contract. In 1881 I think I was there about a month or six weeks on the head waters of Goose Creek, both above and below the Rancho Grande. At that time in the Wine Cup place there was an old cabin and corral, and some lands were being irrigated, or had been. Mr. Armstrong' claimed the range. There wasn't anything at the Rancho Grande. I believe I did a little leveling for ditches on the Rancho Grande in 1884. The first selections of land I made was in 1883. I surveyed and selected land on the Goose Creek at Rancho Grande and also at other points upon branches of Goose Creek, for Sparks & Tinnin. In 1883 I selected lands on what is called Willow Creek and down at the Wine Cup. The Rancho Grande was just fenced at that time. The upper field was fenced that fall. Defendants' Exhibit No. 1 is a map I prepared yesterday from information secured in part in 1889 and in part I think it was in 1892 and 1895. The data for the irrigated lands and ditches was secured principally in October, 1889. I secured the data in 1899 showing

the fence line on the east side and some of the fence line on the west side. I did not secure any data for fence lines at Rancho Grande. The lead pencil lines indicate about the location of where I believed the old fence was, but it was not correct. The other lines appearing on Defendants' Exhibit No. 1, with the exception of the extreme southerly line extending across the northeast quarter of section 11, and also the westerly line of fence extending along the west side of the creek in a northwesterly direction in the southeast quarter of the northeast quarter of 11, up into the southwest quarter of the southeast quarter of section 2, of 46, 68, are reasonably correct. The south and the west line were simply sketched in by guess work. The heavy dark line extending from north to south labelled "Big Goose Creek," represents the channel of Goose Creek. A part of it is located from actual survey. The points where it crosses the section lines and where there is a diversion of ditches or sloughs, and the points at the Rancho Grande field around the house, are indicated there correctly. The heavy shaded lines around the quarter section, or forty acre tracts, extending on both sides of the creek, indicate the property lines. On Defendants' Exhibit No. 1 at the upper end in the northeast quarter of the northwest quarter of section 25, 47 north, 68 east, just below where the fence crosses the creek, there was a rock dam and a ditch taken out on the east side, extending in a southwesterly direction into the west half of the southeast quarter of section 25, towards the east side of that eighty

acre tract and following down along the line of the section about three-quarters of a mile long. The survey of that ditch was made towards the 1st of June, 1886. There had been originally a rough dam towards the center of section 35 which threw the water over onto the southerly part of this tract. The ditch that was constructed in June, 1886, commenced at the upper end of the field and extended southeasterly and was about six feet wide on the bottom and in the upper part was nearly four feet deep, coming through a short cut, and then it reached the surface of the ground in about 200 feet and from there had a grade of about eight feet to the mile until it reached the east side of the fence. That is as far as the ditch was constructed on that southeast quarter, and it was about six feet wide by a foot or a foot and a half deep. Later plow furrows were extended along the side of the fence and that extended the ditch. I located that ditch and assisted in constructing it. We began in the first part of June, 1886 and ended by the middle of June. The water was thrown out by the middle of June that season and irrigated the land on the east side of the creek in section 35. I haven't got the exact acreage. I have the total acreage of the fields, but not on either side. I think the dam was put in when the ranch was first started in 1882 or 83. It was an old dam when I went there and threw water out and irrigated almost the entire west side of the bottom land in section 35. The land was gravelly and sandy soil. The crops produced were timothy and alfalfa. There was

a small piece of native grass meadow at the mouth of Willow Creek that was in about the southeast quarter of the southwest quarter of 35, perhaps 5 or 10 acres. There was no natural meadow on Rancho Grande, except at that one place. The next ditch commenced in the northerly part of the northwest quarter of the northeast quarter of section 2, just below the cross fence, and was taken out and extended along the east side of the bottom, past the house, through section 2, and the extreme lower end was in the northwest quarter of the northwest quarter of section 12, near the west side of the same township and range. I think it was a mile and 19 chains long. I surveyed that in June, 1886, and I saw the ditch the first time in 1889 when it was constructed the full distance. It was about eight feet wide on the bottom, a foot and a half deep at the upper end and perhaps five feet wide and a foot deep at the lower end. The land that is irrigated from that ditch is shaded a darker shade from the ditch to the creek, on Defendants' Exhibit No. 1. The land irrigated from the first ditch that I mentioned is indicated by the same shading. The Rancho Grande property, as shown on Defendants' Exhibit 1, extends from the northern end of section 35, 47, 68, in a southeasterly direction, the lower part of it being in the southwest quarter of the northeast quarter of section 11, same township and range, a distance of a little over two miles. The next place below that is what we call the Wine Cup field. The upper end of that field is in the northwest quarter of section 13, or the south

half of the southwest quarter of section 12, and extends in a southeasterly direction about two miles in length. I know of other ditch construction on the Rancho Grande. There is a slough that starts out from the southwest quarter of the northeast quarter of section 2, and extend down past the house on the east side of the creek, and a ditch was taken out, I understand, in 1888; I saw it first in 1889. The ditch was taken out on Meadow Creek in the west side of the bottom in the southeast quarter of the southwest quarter of section 35, and extended in a southerly direction on the western side of the bottom. Another ditch was taken out just below the cross fence in the north center of section 2 and extended in a southwesterly direction and dropped into a swale or slough, and that was cleaned out and enlarged in places to carry water along the west side of the southeast quarter of section 2, and extended down and across the lower fence line that was below the house. The lands irrigated from that slough and ditch are on both sides of the creek at Rancho Grande. There were no other ditches constructed on Rancho Grande in those early days that I can recall. Later on I laid out two other ditches. Later on there was a little more work done. In 1900 or 1901 I was at Rancho Grande and found that there had been a ditch taken out from the upper end of the upper field, extending southwesterly from this stone dam and head of the ditch that I had put in, and carried along the fence. It was about half a mile long and was dug between 1889 and 1901. An additional area of about ten

acres was irrigated from that ditch. It was largely used as a substitute for the ditch that was constructed in 1886. There was considerable alfalfa and timothy. Alfalfa was put in on the upper field on the east side of the Rancho Grande in 1886 and was irrigated from the ditch that was taken out the 1st of June. I think there was about 25 or 30 acres. Prior to 1886 there had been timothy and I think red top sowed on the ranch at different places, principally in the upper field, also in the pasture or house field. In the two upper fields there were some crops grown and harvested there in 1883. There was a stack of hay there in that year when I went there, and I am positive there was hay cut at Rancho Grande from 1883 on. In 1894 when I was there the land had been irrigated from the ditch on the east side and they were clearing off the sagebrush that was partly dead and putting it into alfalfa and timothy. In 1886 part of the Winecup field was fenced and had a dam put in the southeast quarter of the southeast quarter of section 11, township 46 north, range 68 east that turned the water out into a slough. The dam had washed out and I had it reconstructed. The slough extended south of east for over a quarter of a mile along the east side of the bottom, and near the point where it turned from an easterly course to a southeasterly course I laid out a ditch and it was constructed and took the water out and carried it into the field and from there it was spread out onto what you might call the island between the creek and the slough. There was also another ditch taken out in

the west side that I note in the diary that I kept that year, but I have no recollection as to just where it is and I did not make any sketch of it at that time. This ditch is not shown on the map. It was somewhere below this slough in the southeast of the southeast of 11, and extended along the west side of the bottom. When I was there in 1889 I went for the purpose of locating the land that had been placed under irrigation up to that time. I noticed the ditch that was taken from the slough running down to the land on the east side, but I did not notice the other ditch. There were no other ditches constructed on the east side that I know of. The west side of the creek had been irrigated by putting dams in the creek. In 1889 I made a survey of the land that was under irrigation and there was about 269.2 acres. It was located in the east half of the northwest quarter, and the west half of the northeast quarter, and the southeast quarter of section 13, and in the northeast quarter and the north half of the southeast quarter of section 24, township 46 north, range 68 east. The character of the crop that was grown there was, according to my recollection, native grass. I am not positive that there was any timothy or red-top in there. When I was there in October, 1889, the grass was pretty well dried up, and you couldn't hardly tell what it was. In 1889 there was 428.2 acres under irrigation at Rancho Grande. In the upper field it was pretty well under irrigation and they had alfalfa, timothy and red-top there. They used it generally for pasture for their horses a good part of the time.

In the lower field in 1889 I am reasonably positive there was nothing but irrigated pasture there. In the upper fields the alfalfa died out and timothy and red-top took its place when I was there in 1900. I didn't see any signs of alfalfa at that time. In the extreme lower part of the ranch there had been alfalfa and timothy planted in 1894, and the alfalfa was dying out and timothy and red-top taking its place. In the pasture field it was almost entirely native grass.

I think it was in 1904 that I laid out ditches on Spring Creek. I don't know whether they were constructed or not. I established a weir at the lower end of the field for measuring the water. In 1889 and afterwards the lands in the Rancho Grande and Wine Cup were flooded just as is done in other parts of that range and other places in the valley. I did not observe as to when the irrigation commenced and when it ended. By the flooding system I mean that the dams were fixed up or established in the channel and as soon as the water commenced to raise in the spring it would spread out over the ground and be allowed to run until haying time, when it was turned off. Of course the parties would spread it on the ground better than it would run naturally, but they would see that it covered as much of the ground as possible and as much of the time as possible until haying. I would say that that sort of irrigation took place all over all areas in the shaded parts of defendants' exhibit 1, as early as 1889. In 1886 when I laid out the ditches I would say that at least four-

fifths of the upper field and two-thirds of the middle field were under irrigation by that method; also a little in the lower field. In 1886 the Wine Cup field was placed under a little better irrigation than it had been by fixing up the dams and throwing water into that slough and taking a ditch out of the upper end of the field. After these things were done in that year the amount of land irrigated at the Wine Cup field would be about the same as I have stated for 1889. The work I did in surveying and levelling ditches in 1884 simply consisted in levelling from the creek out a ways to see if dams were put in, whether they would throw the water out, and not with the intention of constructing any ditches. There wasn't any construction followed those surveys, that I know of. There were dams there in 1884. There were two dams that I remember of in Goose Creek in the upper field; one was the one I have already mentioned in the extreme upper end of the field, and the other one was very near the center of section 35. That threw water out on the east side of the bottom, covering the lower end of the upper field. The dam in the upper end of the field threw water out on the west side and practically covered all of the west side of the bottom. The water taken out in that way covered altogether about 221.5 acres in the upper field. That was as I saw it in 1889. I would think there would be 160 acres in the upper field irrigated by those dams that were used in 1886. The crops produced were native grasses principally, but it appears to me there was timothy and red-top and some rye grass

on the east side. In 1886 I noticed a dam placed in the house field about half way from the house up towards the cross fence. Prior to 1886 there was some of the land irrigated in the south field; it is now the middle field. There would be about 50 acres. Sparks & Tinnin had charge of the ranch when I went there in 1886 and they afterwards conveyed the property to the Sparks-Harrell Company. I did this work for Sparks & Tinnin. They constructed the ditches.

CROSS EXAMINATION:

There is a section corner at the northeast corner, at the northwest corner, at the southwest corner and the southeast corner of section 35. In 1886 I found the quarter-section corner on the east side, but I don't remember looking for one on the west side. I found a quarter-section corner on the north side. I never found the quarter-section corner on the south side, except that when I first went there in 1883 there was a small stone set in the meadow. I did not place all of them; my partner, Col. Munroe, was also there. None of the interior lines are surveyed lines; they are just drawn on in the regular way provided by the Government. The line of the stream between the northern boundary and the southern boundary is not a surveyed line at all, except I found the place where it crosses the north line and where it departs at the south line, and sketched in between the two points. I surveyed the river in there on one or both sides and located the stream and sketched it in. I have the sketch. I can't be positive just what I did do in surveying the river across there from the north

to the south line of section 35, but my recollection is that I started from the quarter-section corner and first located the north corner of the field and went across and located the creek. I had a transit and stepped it. I was alone. Then I went south from that corner and I think I went a quarter of a mile south, then stepped west and located the creek and stepped east and located the ditch. Then I went south $26\frac{1}{2}^{\circ}$ east across the southwest quarter of the northeast quarter of 35. The $26\frac{1}{2}^{\circ}$ brings you to a point just 20 chains south and 10 chains east. I took a direct sight across on that course and stepped off the distance; and then from that point I stepped east and west. From the center of section 35 it is about 17 chains from the river to the ditch on the east side. I arrived at that by stepping the distance. The note I have of it is right here on the sketch. The sketch hasn't any figures at all, but it is marked off into squares, 5 chains square. I located the whole thing that way in October, 1886. I pursued the same course all over the whole range, Salmon River and Thousand Springs. I never took the course and distance of any of these ditches from the point of diversion down along the exterior lines. None of the ditches marked on the map were ever surveyed by me in that way. I laid out the ditch marked highest up at the top of the map in 1886 and I found it there in 1889 constructed. It was constructed before 1889. In 1886 I saw the ditch already noted as starting from the upper end of the field and extending northeasterly along the east side of the field. I assisted

in building it. I wish to make a correction. The upper ditch I laid out in 1889 and the next time I went to the ranch I found it was constructed. On the west side of section 35, in the center, it is a quarter of a mile between the river and the ditch. None of that land was under cultivation in 1881. The first ditch I remember seeing was the one I assisted in constructing in 1886. It was finished between the 1st and the middle of June. The end of the ditch at that time was in the southwest quarter of the northeast quarter of section 35 and was about half a mile in length. It was continued by simply a plow furrow, I should judge from the appearance, carried along the fence line. I first saw the plow furrow in 1889. I saw a ditch in 1900 or 1901 that was constructed along the fence along the west side of the creek and carried to the west side of the bottom land, but I am not positive when it was constructed. It took the place of a slough that started out from the creek above the fence line and extended along the west side. I saw the ditches on the east side in 1886 and 1889 and on the west side in 1889, and I think the next time was in 1894 and 1900 or 1901. I was over there in 1896 but I paid no attention to ditches. I was laying out fence lines. I have not been there since that time. In the middle field on the east side the first ditch I can recollect seeing was in 1889. There were two ditches there then. I noted the ditches on the west side in 1889. I was there for the purpose of collecting information about irrigation and irrigable lands on

those ranches. I first saw the ditch in the lower field in 1889; am not sure that I saw it in 1886 constructed the whole distance or not. That ditch is the one marked on the east side of the bottom, starting from the northerly part of section 2, and extending down into the northwest quarter of the northwest quarter of section 12. The other ditch that I saw there in 1889 was one about less than a quarter of a mile above the house, taken out of a slough and extending along the east side, coming down into a little garden they had there and into the corral. There are two sloughs shown on the map; the one on the west side in the upper field is continued on the west side of the house field; the one on the east side of the house field extends down between the house and the creek and down into the lower field, about half way. The slough on the west side in section 35 originally commenced in the river in the extreme north side of section 35 and extends completely down the west side. There were no willows on it during my time. I first saw ditches on the Wine Cup in 1886. The first one starts in the extreme south side of the southeast quarter of the southwest quarter of section 12, 46, 69, and extends in a southerly direction. It was perhaps an eighth of a mile long. It came out of the slough and carried the water on the high ground on the island between the creek and the slough. It dropped into the old road that extended along there and was distributed by putting dams in the road and throwing the water out on each side. The only slough I have noted on the Wine Cup field is the one that

I have already mentioned as starting in the southwest quarter of the southwest quarter of section 12, and extending along the east side of the bottom. The pencil lines I have marked along there as the upper part of the irrigated land where the water commenced to spread out. They do not represent the northern end of the irrigated land. The line running down there on the west side of the Wine Cup is the westerly end of the irrigated lands as I noted it in 1889. It is neither a slough nor a ditch.

I have simply marked the main water courses as the Big Goose and the Little Goose. As far as the irrigation development is concerned I have either marked it ditch or slough. The land on the west side of the Wine Cup ranch was irrigated by one or two dams in the creek. They put rock dams in there. The east side of the Wine Cup was irrigated entirely from this slough, except that down towards the southeast quarter of section 13, the dam somewhere in that locality, might have thrown some water out on the east side as well as on the west. I know it threw the water out on the west side. The waters that irrigated the east side of the Wine Cup came down through that slough and short ditch. In those days the water in that short ditch got down as far as the point opposite the house on the east side, somewhere about a mile and a quarter. There might have been plow furrows taken out. The water followed the road and there was also swales in there. I never noticed any place where hay was cut on the Wine Cup prior to 1889. There was no cleared land. There was some natural meadow towards the house.

If it was cleared, the brush was all taken off so that you couldn't tell it from the natural meadow. Of course I was not the first one in the country and the water might have been turned out before I went there. I never saw any ditch that had been constructed before I went there.

In 1900 hay was cut on the south field at the Grande ranch. In 1894 there was some land cleared on the lower ground and my recollection is the upper ground had already been cleared and put into alfalfa. That had been done between 1889 and 1894. The land was cleared on the lower ground next to the creek. I think it was somewhere in the neighborhood of 50 or 60 acres. I don't remember of seeing any hay cut in the middle field on the Grande ranch. I think there was hay cut above the house, but I am not positive. It seemed to be used for pasture principally. There was a small stack in the upper field when I went there in the fall of 1883. It was cut off of what I call the natural meadow from Willow Creek on the west side. I think there were 30 or 40 tons there. I saw hay there in 1884, '85, '86, '89 and '94, I think I was there in '95, 1900 or 1901, and I believe in 1905. There is a slough to the west side of the stream in section 35, on the Grande ranch, extending from above the ranch clear down below the end of the field, but I never located it. I would not swear there were any ditches on the west side. I think there is, but I won't say positively. Water was distributed over the west side by a plow furrow run between the creek and the slough by Mr. Filkins,

down through the center of the piece. It made a deep wash there, in some places three or four feet deep, and the water is distributed from that wash to irrigate both sides towards the slough on the west and the creek on the east. On the west this slough is nothing but a swale and the water simply spreads out on the west side on what I have marked the bottom of the swale. On the west side of the middle field the land is irrigated partly from the same slough extended out, and also there was a dam put in the creek above the house that threw the water out on that land. I saw that dam in 1886. It was a stone dam. The creek at that point would be perhaps 15 feet wide and three or four feet deep. Referring to plaintiffs' exhibit No. 13, the area marked in red would be, I should judge, at the extreme south end of section 2 and the north part of section 11. You might say that the west side of the creek in section 35 is all under a ditch taken out from the head of this creek, just above this dam and extending straight across next to the fence, to a point 40 or 50 feet below the fence; that is my recollection. It extends some 10 or 12 chains out the east side across the slough. This map shows what was there in 1889. The ditch I have just mentioned was built in 1901.

INTERROGATIONS BY THE COURT:

I obtained the information from which I have drawn this map in October, 1889. I shaded those parts of the map in black to indicate the extreme outer edge of the irrigated lands. The shading on the inside is the lands under irrigation in 1889. I

called them irrigated because they showed signs of having been irrigated. The water had been over the ground and the grass was thicker and more of it on that land than there was on the land on the sides away from it. I had seen water on it; I had assisted in putting water on part of it in 1886 but not on every acre of it. I could pretty well bear in mind where the water had been during 1886. I was over that ground pretty thoroughly. I was working for the company then, during the whole spring, summer and fall of 1886, on different parts of the range, and I took particular note what had been done up to that time, and noted as well what I did in the way of putting in dams or taking out ditches, or laying out ditches to be taken out. I made these sketches in 1889. I did not sketch them from memory of what I had seen in 1886 but from the actual survey on the ground in 1889. In selecting the outer edges as shown upon this map shaded dark, I went by the edge of the bottom land, where it had been cut over for hay. The edges were shown very plainly by the markings of the better growth of grass that was on it. You might say that by that time most of it had been partially cleared off, or the brush partly killed by the irrigation. Of course, where the ditches were they showed the outer edge of the irrigated land, because it was all irrigated below the ditches.

Defendant thereupon introduced in evidence Defendants' Exhibit No. 1.

Cross Examination of Mr. McClellan (continuing):

In 1881 I was in the valley one night, selecting lands for Sparks & Tinnin to buy. I saw it next time in 1884 when I was there two nights and one day. At that time I selected 920 acres of land in that township and 480 acres in township 46 north. I was at the ranch itself two nights, of course, and part of one day, and the evening of the first day I reached there and the morning of the next day. The day I was there was spent mostly in selecting this 900 acres of land. My recollection is I located some land at both the Rancho Grande and Wine Cup fields, the first time in 1883 and this time in 1884. The next time was in 1885 I can't remember the exact date I was there in 1885, but I think it was sometime in July or August. I don't remember the period of time I was there; I think it was two or three days. I have testified largely from a typewritten memorandum which I have held in my hand. I wouldn't be able to say without reference to that what time I was there or how long. This is taken from an old satchel of note books that I have with me, and I have selected out the different times that I was there and what I did. In 1886 I think I was there a week or 10 days; I don't know positively, but according to my notes I laid out the ditch that extends along the east side of the house, on the first day of April. That took me a day or two. I did other work around there, so I suppose I was there a week or ten days at that time. During that year I was there several times. I was there in June I think some two or three weeks. Next time I was there was in October, 1889. I did not

make any surveys of the ranch to determine its irrigable areas until 1889. I have no distinct recollection as to how I made the surveys, except as to the general way that I do those things. This note book and the plat in it was made in 1889. I had a pencil sketch and I noted down some of the points I wished to bear in mind. I have not a particle of objection to your seeing it. The principal note I made at that time is the connection between the quarter-section corner on the north side of section 35, 47—

THE COURT: Mr. McClellan, just answer the question. Read your notes just as you have them.

Mr. McClellan (reading): Quarter corner between 26 and 35, northeast corner of fence, north 54 degrees west four and a half chains. Head of new ditch north sixty-three and a half west, 18 chains. That was there. (Indicating.) Corner to one and two north boundary of forty-six, sixty-eight, south 60 chains and west 20 chains, thence I run south 34 degrees east 39 chains, reaching the south boundary, reaching 40 chains south of that point, 40 chains 62 links south of that point and 27 chains and 40 links east. At this point, to the southeast corner of the fence. Lower end of ditch south 15 east twenty chains and a half from section corner. This is the corner to sections 1, 2, 11 and 12. The end of the ditch was south 15 degrees east twenty chains and a half. That ditch was constructed and surveyed in 1886. In connection with the Rancho Grande ranch I have in addition to that only a set of levels of the new ditch that I laid out at that time. I don't know

when it was constructed. It was there the next time I was there on the ranch. That is all I have in my note book about the surveys I made there. The sketch in the note book was made on the ground at that time. It isn't a loose-leaf.

Q. We would like to have this in the record so that the Court can see it, but I won't ask you to leave your book here if you will just make us a duplicate.

A. Can I make a sketch of it later on?

Q. Yes, on the same sort of paper, but let the Court see it now so that he may understand what we are talking about. Now, let us go to the Wine Cup and see what your book says about the surveys made at that time.

A. I have no note of anything but simply a sketch of surveys made at the Wine Cup at that time.

Q. Could you mark in red upon this map just what the book says there, what you have read from the book, so that it may be readily identified upon the map?

THE COURT: Do you want him to indicate the lines, or write on it?

MR. HAYS:

Q. Indicate the lines, where it is simply made up of a note of a course, mark it with a number, and on the margin with another number, so as to identify it.

A. You just want me to simply mark on this the lines that I run?

Q. Yes.

A. Oh, yes, I see. I think that covers it.

Q. Calling your attention, Mr. McClellan, to a

portion of the land marked in red in section 2, on exhibit No. 13 of the plaintiff, I would like to have you mark with a cross, with a red pencil, the general location of that on your exhibit No. 1.

A. With a cross, or just outline it?

Q. Well, you may mark it with an outline or a cross, whichever you can do best, most conveniently; it is immaterial; just mark it heavily enough so that we can see it.

(Witness did as requested.)

Q. Now, calling your attention to plaintiffs' exhibit No. 13 and a portion of land in section 13, marked in red, at the Wine Cup ranch, will you please designate on this map the general location of that area by a cross?

A. It covers considerable territory there.

Q. Well, mark it.

(Witness did as requested.)

The area marked in red on plaintiffs' Exhibit No. 13 is not entirely above the slough that takes out on the east side, and not so represented on my map. I haven't that marked on my map. The slough that I have marked upon my map is also delineated upon yours. To ascertain the area of this shaded portion in section 35, as well as other sections on the Rancho Grande, I took what we call cross-section paper, ruled ten squares to the inch, and a scale of ten chains to the inch on this paper and transferred from my book to the quarter section corner the exterior areas of the irrigated lands, and also all the topography I had on my book, and then to find the amount of land there

was inside of this, each small square represented one-tenth of an acre, and I counted the number of squares that there was in the different pieces that I wanted to find out, and the number of squares represented the number of tenths of an acre there was in that particular piece. There are machines for computing areas of that kind. If you have a good machine, it will do it just as accurately as my method. It might not do it more accurately. The little squares in my original book are five chains square, or 330 feet. A lead pencil mark covers up quite a little of the land. Where it is a hard pencil it possibly doesn't cover much of the land. A slight variation in drawing my line in a small book might make some little difference, but as a rule you will find that those variations will neutralize one and another in a sketch, and where you run off a little bit on one side at another point you will run the other way, and they will come very close. It is not a matter of personal equation. I would say that the shaded area is accurate within an acre. The area is 438.4 acres under the new ditch; of this 428.2 acres was under irrigation in 1889. As shown on defendant's exhibit No. 1 the exact area of the shaded portion is 428.2 acres. I don't think it is more than an acre out of the way. The only ditch I found on the Wine Cup in 1889 is the one that is shown on the north end of the ranch in section 13. There was plow furrows through the field, simply small leads to distribute the water. There was quite a number of them but I don't remember where they were. In 1889 that ditch had dropped

into the old road, and the road was being used as the ditch, and there were dams put in the road. And I can't remember whether there were plow furrows taken out from there or not, but I believe there was in different places to cover the land. I don't recollect about that at this time. I have no note of such a thing; it is just my general opinion in regard to it. I didn't see any ditch on the west side of the Wine Cup in 1889; there might have been. I know I laid out one in 1886, but I didn't locate it. On the east side of the Grande ranch in section 35 in the upper field there was 87.1 acres that was under irrigation, and I think every acre, except just a few little places along the creek were cut. There were willows part way across the field that taken off perhaps two or three acres of land. On the east side there was no pasture; that was all cut. On the opposite side of the creek in the same field there was 134.4 acres under cultivation, and I can't give the exact number of acres that were cut. I think there might have been 20 acres of pasture. The balance was hay land. This is simply from recollection and may not be anywhere near right. I made no difference in my plats between hay land and pasture land. I didn't make any survey of it except as I have explained. In 1889 in the middle field on the east side I think there was about 20 acres of hay lands and the balance of 141.2 acres was pasture land. On the west side I think there was about 40 acres cut and the balance of $25\frac{1}{2}$ acres was pasture. The forty acres that was cut on the west side was in both ends of the field; part of it was

almost directly opposite the house and part of it towards the upper end of the field. This water was spread out over the ground partly from a slough or draw that came down from the upper field on the west side and there was a dam on the upper end of the field that diverts water to the main east-side ditch, and I believe the water spread over it to the west side on account of the dam. My recollection is that the water from the dam in the southwest quarter of the northeast quarter of section 2 diverted water on both sides of the creek and that was carried along the west side to irrigate the lower end of the field. I have no recollection of any ditch on the west side. There were sloughs and dams in the sloughs. It was all pasture in the lower field on the east side. I have already noted that as a part of the east side down past the house as the total of both the middle and the lower fields, 141.2 acres. It was impossible to segregate those fields because the water comes down from all those ditches and sloughs onto it. The 141 acres extended over to the lower end of the middle field as well as the upper end of the house field. In 1889 there was sagebrush in the lower end of this field. In that year I don't remember of seeing any sagebrush in the upper field. In the middle field there was some sagebrush cleared off above the house up to the upper end of the field on the east side. In the lower field I don't think there was anything done except to turn the water out and let it run over the field. I never knew of or saw any irrigation in 1889 on the west side of the lower field. I never knew of

or saw any ditches there. It is the shaded portion on that map that amounts to 428 acres. It was irrigated. Cultivation on a stock ranch is considerably different from other ranches.

RE-DIRECT EXAMINATION:

I have made the tabulation that counsel asked me to make yesterday with reference to the irrigation up to 1889 on the Rancho Grande and Wine Cup fields. I have tabulated the computations and have given counsel a copy. Defendants' exhibit is the result of my computations.

Defendants thereupon introduced in evidence Defendants' Exhibit No. 2.

Referring to those tabulations the total area of land under cultivation on Rancho Grande in 1889 was 428.2 acres. On the Wine Cup field the total area under irrigation was 269.2 acres. The total on both Rancho Grande and Wine Cup under irrigation in that year was 697.4 acres. The photograph marked Plaintiffs' Exhibit No. 22 shows a ditch that was constructed prior to 1889, taken from the south side of section 12 and extending southeasterly. That is this ditch here. (Indicating.) The ditch is shown on the photograph about the same distance as it is shown on the map, somewhere in the neighborhood of 10 chains.

The Sparks-Harrell Company came into possession of the Rancho Grande and the Wine Cup, I think, in 1891. Sparks & Tinnin were in possession prior to that time. I understand they bought Rancho Grande and Wine Cup in 1881. The Vineyard Land

and Stock Company succeeded the Sparks-Harrell Company in possession.

HERMAN B. WAY, duly sworn as a witness on behalf of defendants, testified as follows:

DIRECT EXAMINATION:

I am a civil engineer, twenty-four years old, and have had experience in my profession a little less than six years. I have had experience in land surveying over a period of five years; the longest time on one survey was about nine months. Assisted by Mr. J. H. Patton, Mr. W. A. Crosby, Mr. R. B. Patterson, Mr. Frank J. Kramer, Mr. Herbert Barrows and two other men whose names I do not know, I made a survey of the property owned by the Vineyard Land and Stock Company on Goose Creek in the State of Nevada. This work extended from March 22 to April 25 of this year. Defendants' Exhibits 3 and 4 are the plats of this property, made under my supervision. Where lines are shown we obtained them by means of a transit. All distances on the base line were procured with a chain. The red line upon Exhibit No. 3 indicates the base line. That is also true of Exhibit 4. Some of the distances shown on the map were obtained by chaining them and some by stadia readings. I know something of the degree of accuracy of stadia readings and I would say that you would never be more than five-tenths of a foot out on a reading 2,000 feet away. Notes were made on the ground at the time these surveys were made and I have these notes. These maps were made up under my supervision from these notes, and I have checked

the maps with the notes. On defendants' exhibits 3 and 4 Goose Creek is shown with a double line in blue. The name is written along the line. In making these surveys we made locations of ditches, edges of the meadow, roads in some places, bench lines, boundaries of stubble fields, houses, corrals and such improvements as were on the ranch. So far as I know the ditches do not bear any name in that section of the country. I have numbered the ditches for the purpose of computing the acreage under irrigation. Upon Exhibits 3 and 4 the ditch lines are indicated with a plain blue line and bear a number. No other lines, except ditches, on Exhibits 3 and 4 are numbered. The numbers are in lead pencil. The fence lines are shown by the conventional sign of a line and a cross and another line and a cross. The greater part of the defendants' property on Goose Creek is fenced. The property lines of the defendants' lands are shown by a heavy marking around subdivision lines and sections. I made computations of the areas located under the various ditches shown upon Exhibits 3 and 4. In all cases where it was irrigated I made measurements of the land by means of stadia readings from a base line. To ascertain and form a judgment as to how much land was benefitted by irrigation, we took the actual edge of the meadow lands and stubble lands, as we subdivided it in the book. The area under irrigation under ditch No. 1 is 298.8 acres; 252.4 acres of meadow land and 46.4 acres of stubble land. On the Rancho Grande there is under ditch No. 14, 201.8

acres of meadow land; ditch No. 15, 94 acres of meadow land; ditches No. 1, No. 14 and No. 15 include all the acreage on the Rancho Grande. Under ditch No. 2 on the Wine Cup field there are 84.8 acres of stubble; ditch No. 3, 126 acres of meadow; ditch No. 10, 8.8 acres of plowed land; total under ditch, 451.2 acres. The balance under these ditches is grass and rabbit brush. It is fenced pasture lands. Under ditch No. 12 there are 64.4 acres of meadow, 35.4 acres of stubble field, making a total acreage under ditch No. 12 and ditch No. 10 combined of 558.8 acres. Under ditch No. 13 on the Wine Cup field there are 33.2 acres of stubble field. Ditch No. 13A is a part of ditch No. 13 and under it there are 23.2 acres of plowed land. That is in addition to what I gave under ditch No. 13, or a total under ditches No. 13 and 13A of 61.2 acres. I believe that concludes the Wine Cup field. Following down the stream the total acreage under each of the ditches is: Ditch No. 4, 134 acres. This is south and a little more than a mile east of the Wine Cup field. It is taken out of the south side of Goose Creek. Of the acreage I gave under ditch No. 10, 451.2 acres is below the Wine Cup field and 8.8 acres is in that field. Under ditch No. 4 the character of the cultivation is grass and brush. Ditch No. 5 heads in section 25, ranges 69 and 70 east, township 47 north. There are 88 acres of grass and brush under that ditch. Ditch No. 6, 218.8 acres of plowed field; ditch No. 7, 74 acres of meadow and brush land. The head of ditch No. 6 is in section 19, township 47 north,

range 70 east, about 550 feet east of the range line and 400 feet south of the center line of section 19. Ditch No. 7 heads in section 19, about 900 feet east of the range line, and 450 feet north of the center line of section 19, 47,70. Ditch No. 8 heads in Jay Creek, in section 24, about 1700 feet north of the section line between 24 and 25, and 2400 feet west of the range line of range 69 and 70 east, township 47 north. The area of meadow land and brush land under ditch No. 8 is 144 acres. Spring Creek is shown on Exhibit No. 4, with one line drawn in a similar manner to Goose Creek, with the exception that it is a single line. It is in the southwest corner, near sections 23, 22 and 15. The ditches there are numbered. Ditch No. 1 heads in section 26, in the northwest quarter of the northwest quarter, about 200 feet south of the section line between 23 and 26, and 900 feet east of the section line between 26 and 27, 46 north, 69 east. The acreage of meadow land under this ditch is 25.8 acres. Ditch No. 2 on Spring Creek heads on the section line between 22 and 23, about 550 feet north of the quarter corner of 22 and 23, 46 north, 69 east. I haven't the acreage; it was pasture land under this ditch. Ditch No. 5 on Spring Creek heads in the northeast quarter of the northeast quarter of section 23. The acreage under this ditch is 55.2 acres of meadow land. Ditch No. 3 heads in the northeast quarter of the northeast quarter of section 22, about 307 feet west of the section line between 22 and 23, and 450 feet south of the section line between 15 and 22, 46 north,

69 east. The acreage under this ditch is 33.8 acres of pasture land, grass and brush. I haven't the acreage under ditch No. 4. In addition to the ditches I have given there is Ditch No. 1 on Little Goose Creek. It heads in the southeast quarter of the northeast quarter of section 26, 46 north, 68 east. There are 67.2 acres of stubble field, and a total acreage under ditch of 89.6 acres; the balance is pasture land, grass and brush. There are 45.2 acres of flooded area below the end of the ditch. This is pasture land. Wherever ditches are shown on these exhibits the length of the ditch and the course are accurately shown. By means of a scale the length of each ditch can be ascertained to a very close degree of accuracy. The scale of these exhibits is 1000 feet to the inch.

CROSS EXAMINATION:

When I referred to brush land, I meant sage brush and sometimes rabbit brush and greasewood. I did not include willows. When I referred to pasture land I meant land that is fenced in and used for pasture. By meadow land I meant land, the greater part of which had actually been cut for hay. It was meadow land that could be cut. I was employed by the company last year, but I did not work for them before that. I was on this property several times during the summer last year. I made the original survey of ditch No. 5 on Goose Creek before it was constructed. I did that this spring. I surveyed ditch No. 7 on Goose Creek this spring; also ditch No. 9. In measuring ditch No. 15 on the Grande ranch on the east side, from stations on a general

base line in accurate courses, I turned true angles and took stadia readings of all the bends in the ditch. I didn't chain the ditch line itself, but points on the base line and platted it on accurately. Ditch No. 13A was done in the same way.

Defendants thereupon introduced in evidence Defendants' Exhibits No. 3 and No. 4.

CHRIS MORTENSEN, duly sworn as a witness on behalf of defendants, testified as follows:

DIRECT EXAMINATION:

I am employed by the Vineyard Land and Stock Company and have been located on the Grande Ranch and the H. D. Ranch. I became foreman of the Grande Ranch the 1st of July, 1913. I irrigated there during the years 1913 and 1914. In 1913 I irrigated the Wine Cup. On the Grande Ranch the ditches were taken out from the upper end of the field and irrigation was by the flooding system. That was the system carried on all over the Grande Ranch. I did not build any ditches myself during that year. I would think there was a little better than 200 acres cut in the upper field on the Grande Ranch in 1913, and I would think a little more than 100 acres cut below the house. In 1913 on the Wine Cup I placed some straw dams in the old cuts where they had been before, and just flooded the water out over the ground through the old ditches. In 1914 I had to plow them out a little to get the water through; cleaned them out. I used the same ditches and covered the same territory as in the previous year. In the Wine Cup field I would think there was better than

200 acres irrigated in 1913. No part of it was mowed. A little more than that was irrigated in 1914. That year we cut some grass. I had some Italians there that was clearing the brush from the edge of the creek for the purpose of enlarging the area of the meadow land. It had been used for pasture apparently and young willows had started growing up all through the openings, and we had these willows cut out. I know the location of what Mr. Griffith called sloughs. In 1913 there were places all the way along where you could see where they had been used to check the water, that is, dams put across them and they were used as ditches. It was a natural swale or low place in the ground and saved making a ditch. From these checks that were put across there had been small ditches plowed around the high places and taken out and spread over the meadow proper. I continued to use these methods either at the same places or at the places I made in the same slough during the two years I was there. Part of what has been referred to as the island was in cultivation in 1913 and all of it in 1914. There was an old ditch that heads in the island and goes down to the Wine Cup field. That is the only ditch, but it is washed down deep. We couldn't use it to irrigate on the island. The island is irrigated by what you would call sub-irrigation from the stream.

CROSS EXAMINATION:

There were no new ditches built on the Grande Ranch in 1913 or 1914, nor on the Wine Cup while I was there. On the lower end of the Grande Ranch

on the west side when I first went there in July, 1913, there was fall wheat, sowed in the spring. Apparently that was not all new ground; I don't know how much that had been irrigated. I didn't say anything about how old the cultivation was that had been in crop before that time. It was apparently not new, because it was mellow, it plowed up nice, but I don't know anything about it. It was nearly always soddy. It was irrigated by corrugations from the ditch that comes out just below the upper field above the house and runs around on the west side. I think the ditch is right close to the partition fence. It was an old ditch so far as I know; I don't know when it was built. It didn't appear to be new at all. I don't know how old the cultivation in that field was. I would say that it had been planted to something before that spring, but I don't know.

MARK CONGER, duly sworn as a witness on behalf of defendants, testified as follows:

DIRECT EXAMINATION:

I run the outfit on the Wine Cup from the fall of 1907 until the spring of 1910. My headquarters was at the Gamble ranch on Thousand Springs. I went to Rancho Grande the last of November, 1907. I saw fields, one above the house and one below the house, on which hay had been cut that fall. There was stacks on both fields. In gathering cattle I used the Wine Cup field and the field about the house, too. The one above the house was used to wean calves in that fall. I used it in the winter time for pasturage all winter. The Wine Cup field was used gen-

erally as a saddle horse pasture. Generally we would hold the cows in the Wine Cup field when the calves were taken to be weaned. That was in the fall of the year. There was one dam above the Wine Cup field about a quarter of a mile. In the spring of the year as a rule the water was all over the field. It was wild meadow. There was only one ditch that I remember very well on the meadow or field above the Rancho Grande house. It is the one that comes around on the east side above the house. I have seen water over the field above the house and the one below it, during the spring of the years 1908 and 1909. I wasn't there at all in 1910.

CROSS EXAMINATION:

I was there in May and June and in August and September, and then later in October and November, 1908. Hay was cut that year on both sides of the river; the larger part on the east side. I couldn't give any estimate of the acreage cut over, nor the tonnage, because I don't know. The water I have spoken about that I saw there was during the irrigation season. I was there as late as the latter part of June. There was lots of water there in June all the time.

RE-DIRECT EXAMINATION:

I was never there during the hay season. I don't know how many ditches I noticed on the Rancho Grande. I never did pay any attention to them. I knew the water that was in those ditches came from up the creek some place, but I didn't know just where. I saw all of the fields covered with water below the ditches.

HUGH McGUIRE, duly sworn as a witness on behalf of defendants, testified as follows:

DIRECT EXAMINATION:

I reside at Wells, Nevada. I worked on Goose Creek in the spring of 1906 for the Sparks-Harrell Company. I worked for the same company on Salmon River and part of the time on Thousand Springs some years before that. I had charge of what is called the ditching crew and fencing and such as that. I was on Goose Creek from the 1st of April to the latter part of June or the 1st of July. I saw one ditch on the east side of the creek above and at the house. I did not make any estimate of the amount of land covered by that ditch. When I was there in the latter part of June, they were not irrigating, they were turning the water off then to get ready to hay. The ditch I saw at the place where I noticed it most would be something like four or five feet wide on the bottom and two feet deep.

D. C. WORKMAN, duly sworn as a witness on behalf of defendants, testified as follows:

DIRECT EXAMINATION:

I reside at Churchill, Cassia County, Idaho. I went into the Goose Creek country in Elko County, Nevada, in 1899 and was there and familiar with the Rancho Grande off and on until 1910. I went onto the Rancho Grande in the fall of 1905. I was foreman of the ranch. I was on the Rancho Grande in August, 1899, and saw hay there at that time. They were haying in the lower field and also in the upper field at Rancho Grande. I saw ditches and

water in them. In 1905 when I was there I followed the ditches up; they took water from Goose Creek. As far as I note they are the same ditches that I saw in 1899. I was there in 1900, 1901 and 1903. In those years I saw hay every year on the Rancho Grande in the two fields. In 1905 when I took charge of it I cleaned out ditches, preparing to water the ground the next spring, and also fixed fences, corrals and the like of that. In the fall of 1905 I irrigated what is known as the lower field; that is, the biggest portion of it. There was a dam in the creek above the house just below the partition fence. The field was just flooded in order to make late pasture for stock. The boys in the fall would sometimes put saddle horses, and I also used it for my work horses and milch cows and the like of that. I did not do any irrigating in the spring of 1906 before I left. While I was foreman on Rancho Grande I was at the Wine Cup field and saw one dam above the Wine Cup a short distance which carried the water into the field. There were two ditches leading from that dam; one on the east side, and one on the west side. They appeared to be old ditches according to my recollection. The first time I saw them was in the fall of 1905. The amount of meadow land that was cut in 1899 on the Rancho Grande appeared to me to be about the same as in 1905. I cleaned out two of the ditches in the upper field in that year. One was on the east side and one on the west side. I cleaned out one ditch in the field just below the house. That is the one that comes from the middle field

leading to the lower field. I saw evidences of a dam in the field below the house.

CHRIS MORTENSEN, heretofore sworn as a witness on behalf of defendants, being recalled, testified as follows:

CROSS EXAMINATION:

Referring to defendants Exhibit No. 1, the place we call the island up there was where one branch of the creek makes a turn after it comes in from the fence; there are three branches of the creek just after it gets into the Wine Cup field. It looks like a creek, or old-time ditches, or sloughs. The land in between these three branches is what we call the island. Counting the river on the one side and the slough on the far side, there would be two islands and another slough down the middle. That is the area I spoke of when I mentioned the island. It begins at the upper fence of the Wine Cup field on the west side of the creek as you come into the Wine Cup fence there.

WALTER GAMBLE, duly sworn as a witness on behalf of defendants, testified as follows:

DIRECT EXAMINATION:

I reside at Spring Creek, Nevada; have been there a year. Spring Creek is a tributary of Goose Creek. I have been acquainted with the Goose Creek since 1875. In July of that year I went there to the Wine Cup ranch. J. C. Armstrong was in the cattle business there at that time. The Wine Cup field is about a mile and a quarter or a mile and a half southeast of the Grande Ranch and lower down Goose Creek.

At the time I went there in 1875 there were dams in Goose Creek. I went fishing with J. C. Armstrong and he repaired the dam and throwed the water out. He just shovelled in there and built up the dam and dug around the end of it so that the water would go behind, and made a big slough. The water went into the Wine Cup field. There was just pasture and grass land there. There was nothing but the natural meadows there at that time. There was some sage brush, but no other brush that I can remember of. The sage brush lands were irrigated. Water was taken out of both sides of the stream. I am quite familiar with the Wine Cup field. I last saw it in January of this year. There is not any more land that I know of being irrigated today in the Wine Cup field that there was in 1875. I was there in 1876 and the water was taken out onto the same meadow land as in 1875. The same is true of 1877, 78 and 79. There was more ditches put in in 1889 and 81. There were no fences at the Wine Cup field in those years. The first fencing was done in 1886. In this slough that had originally been made by the Armstrong dam Mr. McClellan had put a dam in and a ditch made and the water was taken out right through the upper end of the gate on the west side and two ditches were made; one went along the edge of the fence and another right along the bank of the creek, and the water was thrown out on both sides there, and then dams was put in on the west side and two ditches put out there. One went right around the hill like that (illustrating), and carried it out, because

the fence runs over a little hill there. I worked for Armstrong three years. The water was taken out of Goose Creek in the Wine Cup field and put over sage brush land and the natural meadow land to make grass for pasture; It was used for cattle and horses. Between 1875 and 1881 it was used for pasture for holding beef cattle from the latter part of July until along in November. The old log house at Rancho Grande was built in 1882. On the Wine Cup there was a cedar cabin and dug-out. That is where Mr. Armstrong lived. He stayed there until the fall of 1881 and was succeeded in possession by Sparks & Tinnin. I worked for them at this place. The water was used on these lands after Sparks & Tinnin acquired them from Armstrong. The old house at Rancho Grande was finished in 1883. I moved up there in the spring of that year. In that year there was a dam put in just below the inside of the fence and ditches taken out on both sides of the upper field, above the house. The field was fenced in 1883. There was a rock dam there. The ditch that took the water from Goose Creek onto the east side of the field was about three quarters of a mile long. It was about four feet wide and two foot and a half deep. Water from that ditch irrigated all the east side of the meadow. The ditch was taken out on the west side the same year. It was a half a mile or more in length. I never measured it. It was about the same size as the ditch on the east side. That ditch irrigated the lands on the west side of Goose Creek. There was a hay crop growing there. It was

good timothy and wild hay. It was all sowed in timothy in 1883, on both sides of the stream in the upper field. In 1883 there was a ditch put around above the first ditch on the east side. It was for the purpose of making more land and increasing the water. The next ditch was put in the upper field in 1889. One dam was in the canyon at the head of the field and the other was put in below the cross fence, and a flume made of poles to carry the water out. This dam is about 200 yards above the dam that I put in in 1883. It is on the outside of the fence. There were two ditches leading from this dam. The other ditch was on the west side. The ditch on the east side was about ten feet wide at the head and further down about four feet in the bottom. The ditch on the west side was the same size. I was there when the dam was put in and the ditches taken out. I took charge of the outfit in 1887 and was in charge until sometime in 1900. My headquarters was at the Gamble ranch and the Rancho Grande. I spent the summer over the range. I kept my supplies at Rancho Grande. Willow Creek is west of Goose Creek and flows into it in the upper field. There were dams put in Willow Creek in 1889. Water was taken out and put into this slough and taken down and a dam put in and a ditch taken out that ran down into the two lower fields. I refer to the field at the house. The upper field was the one above the house. There is a field between these two fields where the house is. It is a grass pasture and was irrigated as soon as I could put the water on in the spring.

It was first put on in 1883. Water was used from Willow Creek on part of the lands on the west side of Goose Creek in the upper field at about the center; also on the pasture lower down. Horses and milch cows were kept in this field. The pasture at the house was irrigated the same as the upper field. I did irrigating in all of the fields. In the spring of 1905 Mr. Workman had been there that winter and he quit, and when the water came down I had to go up and tear the boards off the dam to let the water out and from then on I irrigated all the fields. I would go up and put the water into the main ditch and turn it out wherever I wanted it and scattered it all over the land. I irrigated both the east and the west side. I began along in April and stayed there for twenty days and kept the water over the fields during that time. It was necessary to keep the water over the fields in order to get a crop. Prior to that time water was put out each spring just as soon as the weather would permit, in the same way as I have described. It was kept there until time to cut the hay. I used all the water in the ditches for that purpose. It was necessary to use the water that came through the ditches in order to grow crops of hay. The pole flume I have mentioned was put in just below the cross fence, right close to the bank of the hill where the road is graded around to go into the upper field. It is at the lower end of the upper field. That ditch led down into the two fields past the house. There is one that passes just above the house. The waters were used to irrigate the lower field. Some

of the waters of that ditch were used to irrigate the pasture on the east side. Irrigation on the lower field began along in May or June of 1889. That ditch that I referred to as passing close to the house and the barn was put in in July or August, of 1889. The lower field was irrigated by a ditch that hadn't been put past the house. They turned the water off right at the corner of the house and lowered it down into sloughs and built dams across there. They had Mr. Will Gray and a man by the name of Joe Scott build those dams and levees. There was either five or seven levees built in the slough and the water was spread out. The slough was on the east side. There was wild meadow grass there. They planted timothy. There was 90 acres of alfalfa on the lower field. It was sown in 1891, on the east side. There was about 12 acres of alfalfa grown on the east side of the upper field; it was put in in 1883. The ditch that is on the west side of the upper field takes the water down through the other field. That is the ditch that the Willow Creek ditch leads into. I should judge that ditch runs about half a mile in the lower field. It reaches the lower end of the field. The land between that ditch and Goose Creek was irrigated. Timothy was planted in that field on the west side, along in 1889. There was some sage brush in those day on lands under the ditch, and it was irrigated. Timothy was sown in that place. The land was irrigated from that time on. There is about 180 acres in the field and it was very nearly all irrigated, except a small corner in one end of

the fence where we couldn't get the ditch on. In the upper field I should judge there was 225 or 230 acres that was irrigated in 1900 just prior to my leaving there. Over half of it was irrigated in 1889. It was our system to irrigate sage brush land under the ditches in those fields to make grass. There are two ditches in the lower field; they may have put more there since. I live now on Spring Creek. I did irrigating there in 1904. I irrigated 10 acres of alfalfa and about 35 acres of pasture land. The alfalfa was planted in 1904 and has been irrigated every year since then. The thirty-five odd acres of pasture has been irrigated part of the time, along in the spring. Irrigating was done on the Rancho Grande fields in the fall of the year to make the grass grow for pasture. Mr. Armstrong had some five to eight thousand head of cattle. Irrigation was carried on at Rancho Grande until it froze up. It was irrigated every fall just as soon as the hay was taken off during the time I was there. The ditch that passes by the barn and house is, I think, about four foot wide in the bottom and two to three feet deep. The ditch on the west side of the lower field is about three foot wide and in places it was five foot deep; it has an average of about two foot and a half. About 120 acres of pasture land was irrigated in the Wine Cup field. It was irrigated as early as we could put the water on in the spring continuously from 1886. There was about 100 acres irrigated when I went there in 1875. It was increased from time to time. After 1886 the Wine Cup field was irri-

gated for pasture land the same as in 1875. It was increased several acres after 1886. I did ditching on Spring Creek in 1904 to irrigate the alfalfa and pasture land; put in a ditch about two feet wide and two feet deep. The irrigation of the pasture land was to raise grass. I flooded the land and kept it there during the irrigation season. The irrigation season for summer crops on Rancho Grande and Spring Creek is from the 1st of March until into August; it depends on the season largely. If it is a warm early spring we usually put the water out in March, if possible. If it is a late spring the water is held off a little later. The water from the springs on Spring Creek is used to irrigate the alfalfa and pasture land. There is a stream a little to the northeast of Spring Creek and there is about 35 acres of land irrigated from the springs of that stream. We never had any particular name for it; just called it Spring Creek or Mud Springs. There were two streams there right close together called Spring Creek. On one I irrigated 10 acres of alfalfa and some pasture land, and on the other I irrigated the sage brush pasture. That irrigation has been carried on since 1904. All of the lands are in the same field.

In 1883 some of the land at Rancho Grande was not cut over. Sage brush land was irrigated in the upper field for pasture. It was afterwards cleared up and sowed in timothy. There was sage brush land in the upper field in 1889; it was in the upper end of the east side. It was cleared in 1886. When I was last on the lower field there was some sage

brush land being irrigated for pasture. It was in the lower end of the field. It had been irrigated ever since 1889.

On that second Spring Creek there was about 35 acres outside of the meadow and there is a meadow there of about 50 acres that is irrigated. That makes it about 85 acres. That is not the Spring Creek on which the alfalfa was raised. All of that 85 acres was irrigated in 1904 by me. They have continued to irrigate it since that time. I irrigated it in 1904 and 1905 and it has been irrigated every year since. There might have been a year that I was away on Rock Creek that I couldn't say. I was away in 1902, 1903 and 1910.

There was new land irrigated after 1889 in the upper field. It was sage brush land cleared off. Rye grass grew there. Water was put over it before 1889, but it was cleared up so that we could cut it; cleared the sage brush and the rye grass stumps, and after that it was used for meadow land. Prior to that it was irrigated from seepage. Grass grew on it. There would be about 50 or 60 acres of that. Land was added to this irrigated land in the field where the house is. There was about 100 acres there. It was used for pasture and was irrigated in 1883 and ever since.

CROSS EXAMINATION:

I was at the Rancho Grande continuously from 1882. I would go there sometimes in the spring and maybe stay there a week or two and go away again. In '82 I was there all during the year; I don't think

I could have missed a month. I was there in about the same way in '83, '84, '85, '86 and '88. In '88 I was foreman for the Sparks & Tinnin Company with headquarters at Tacoma, Nevada. I was at Rancho Grande mostly every month. I was there in the same way in '89. I was there in '90, '91 and '92. I quit going there in 1901. In 1888 there was 75 or 80 acres cut over at Rancho Grande on the east side of the upper field. There was about the same area on the west side. That year we got from 75 to 100 tons of hay. In that year there was no ground cut over in the middle field; it was pasture. There was none cut over in the lower field. None of that field was cleared of sage brush that year, and none of the middle field was cleared of sage brush that year. The lower part of the upper field was in sage brush in 1888, on both sides. The upper east corner was in sage brush. There was no hay cut on the Wine Cup in 1888. The first hay cut there was in 1914, as near as I know. It had always been in pasture up to that time. The pasture did not sub-irrigate from the slough that run through it; it irrigated through ditches put in there. There were two ditches on both sides of the river. The ditch on the west side of the upper part of the Wine Cup was put in in 1886; it was half a mile long. The sage brush wasn't cleared off. That ditch is there today and has been right along all the time. It is plainly visible. On the east side I said that a dam was put in the river; a little cut was made out from the dam and that created a slough. I suppose it is

the one shown on Defendants' Exhibit 1. That was taken out in 1886. Three other ditches were taken out on the east side. One came from the dam outside of the fence right through the bars and ran along side the fence, and the other one forked and came along the bank of the creek. That ditch ran the full extent of the field, which was a half a mile long. It was there in 1888. The lower end of the Grande Ranch on the west side, opposite the lower field, was irrigated in 1883. At the present time my occupation is farming on Spring Creek. I am not in the employ of the defendant company. I worked for the Vineyard Company for two years. I quit in 1910 or 1911.

RE-DIRECT EXAMINATION:

I quit the company in 1910 because Mr. Beason fired me.

RE-CROSS EXAMINATION:

I talked over the facts of this case with Mr. Griffith and Mr. Howells in February of this year.

W. G. GREATHOUSE, duly sworn as a witness on behalf of defendants, testified as follows:

DIRECT EXAMINATION:

I reside at Elko, Elko County, Nevada; am County Recorder and Ex-Officio Auditor of that county; have held that office for more than six years. I can't say I am familiar with the ranch at Rancho Grande or Goose Creek, but I have seen it. I saw it the first time in 1884. It must have been the latter part of May or the first of June. I was working for C. H. Hewitt, who was the foreman of the Sparks

& Tinnin cow outfit, known as the Rock Creek outfit. As I remember it there was no fence below the house at Rancho Grande in that year; it was above the house. I saw water over the bottom, parts of it, above the house. The grass that grew there was just native bottom grass. I rode down through it. I am not in position to say that there were ditches. At that time there seemed to be a very large body of water coming down the creek and it ran out in sloughs in different places; it might have been ditches. I couldn't say whether there was any hay put up on Rancho Grande at that time. I think it was in 1885 that I saw hay on that field. It was growing when I saw it. I was at Rancho Grande in the latter part of July, 1890. I was sent from the H. D. ranch to start some emigrants to cutting hay. The hay was to be cut in the field above the house, as I remember it. Hay was growing there. That was on the east side of the creek. I don't remember if I saw any on the west side. Native grasses were growing on the east side in the upper field at that time. I think there was some timothy and red top; there was a very good crop.

CROSS EXAMINATION:

As well as I remember the banks of the stream in places through the upper field were not very high. It seemed to be a comparatively small stream running through a mountain valley. In places it was rather deep and in other places it wasn't so deep.

HENRY HARRIS, duly sworn as a witness on behalf of defendants, testified as follows:

DIRECT EXAMINATION:

I reside at Brown's ranch on Salmon River, Post-office at Rogerson. I came to the West in 1884 and went first to Tacoma. I was employed by Sparks & Tinnin and worked on the ranch at Salmon River from 1884 to 1913. During that time I had occasion to visit Goose Creek at Rancho Grande and Wine Cup. I was there twice in the spring of 1884, in June and July. I went over to help get a bunch of cattle that was delivered there. The next time I was there I went over in July to help put up some hay. This hay was in the upper field above the ranch. I don't recollect how much hay was put up. There was four of us and I think we stayed about 12 or 13 days and used pitch forks; didn't have any derrick at that time. I couldn't give any estimate of how many acres was mowed over during that year. There was quite a lot of ground irrigated that year that we didn't cut over. That was used for pasture. I think there was just the one field at that time. It is the one that is now called the upper field. I don't recollect whether there was any of the middle or lower field irrigated at that time. It was meadow ground along there. I don't recollect exactly how the land was irrigated, but there was water on the meadows and it seemed to be flooded just like we did over at the other places; there were ditches there. I don't know exactly how they were located, or how long they were. In 1884 there wasn't anything being done in the Wine Cup. I think there was a corral and cabin, but nothing fenced up.

It was thereupon stipulated that the plaintiffs would proceed to introduce evidence in rebuttal, and that the defendants would be permitted later on to introduce evidence as to titles of its lands, and also the testimony of Mr. Jensen and Mr. Franklin concerning the capacity of the old ditches on the property of the defendant on Goose Creek, in Nevada.

W. R. GRAY, duly sworn as a witness on behalf of plaintiffs in rebuttal, testified as follows:

DIRECT EXAMINATION:

I reside part of the time at Oakley and part of the time at my ranch in Box Elder County, Utah. It is in the Goose Creek Valley between Nevada and Idaho. I have been familiar with the country covered by the Grande, Wine Cup and other ranches shown on the various exhibits here since 1877. I have been there practically every year, except the summer of 1889. I am engaged in ranching and stock raising. I can't say that I am acquainted with ditch No. 6, marked on Defendants' Exhibit No. 4. The ditch on the east side of Goose Creek, below the mouth of Hardester Creek, was built in the fall I think of 1912 or 1913. The ditch on the opposite side of the river from Hardester Creek, or the Jay Creek ditch, was built in the fall I think of 1912. The ditch on the south side taken out just above the mouth of Bluff Creek was built the same fall. The ditch on the north side was a new ditch; I couldn't say as to exactly when it was built. I think it was built within the last three or four years. There is some alfalfa at the Spring Creek ranch that has been there eight or ten

years I expect. I haven't any dates to refer to. It is probably 10 or 12 years. There is some natural meadow down along Spring Creek on the east side and then over what they call the Spring Creek slough there was a kind of an over-flow meadow there. That land on the east and north is naturally over-flowed; that is, the bottom is. Of course, what they have cleared there I don't know. I think there is a ditch taken out on both sides of Spring Creek running north towards Goose Creek. These ditches were built perhaps three or four years ago. I couldn't be positive. I have seen the ditches on the north and south side of Goose Creek between the mouth of Spring Creek and the Wine Cup ranch. There is only one ditch, if I think right, on the south side of Goose Creek until you get to the forks of Big and Little Goose Creek. That was built in 1912. To a certain extent I am familiar with the Wine Cup ranch. I believe there is some grain land a short distance above the point where Little Goose Creek empties into Goose Creek. It is under a new ditch built, I think, the last two or three years. I don't think it is older than four or five years. I was at the Wine Cup ranch first in 1887. There was a fence there. I just went up through there one evening. This was in the summer after the irrigation season. I don't think I was there again for one year. I was there in 1888 and I believe I have been past and through there substantially every year since that time. In the fall of 1889 a man by the name of Mr. Scott and myself fixed up an old dam in a slough

there and plowed out a ditch for a couple of hundred yards down towards the Wine Cup field, but I never turned no water in there. I never done no irrigating on any of those lands. I could not say whether there wan any irrigation there before that time. There was ground cleared on the Wine Cup; I hardly consider myself competent to say how much. I am not a surveyor, but there was quite a lot of meadow land there, natural meadow, in the Wine Cup field. The natural meadow did not need any clearing of sage brush. The first I know of any hay being cut on the Wine Cup ranch was in 1914. No crops of grain or other crops had been raised on the old original Wine Cup. The meadow there was perhaps between three-quarters and a mile long and from a quarter to half a mile wide, but I am no judge of land as far as measuring it is concerned.

W. H. MARTIN, duly sworn as a witness on behalf of plaintiffs in rebuttal, testified as follows:

DIRECT EXAMINATION:

I have been acquainted with the Wine Cup ranch since 1896, and until 1912. During the period from 1896 until 1912 there was, as I remember, one ditch taken out of a slough in the east side of the field and run down along the east side covering a portion of the meadow down towards the lower end. There was little spots of meadow all along up and down the field, but as I remember it more irrigating was done in the lower part of the meadow down towards the lower end. I would estimate that there was possibly 50 acres of grain that was irrigated on the Wine

Cup from 1896 to 1912. I was on there several different times each year during that period. There is a good deal of cultivation on the Wine Cup where grain has been raised, as I seen it the last trip I made there, which was within the last couple of months. The grain has been put there since 1912. Prior to that time it was, as I remember it, sage brush and greasewood land, or rabbit brush land. The first time I saw the Spring Creek ranch, there was no ranch there. As I remember it possibly in 1904 or 1905 it was fenced and there was some little alfalfa put in there, and there is some natural meadow there, swamp land. That doesn't require irrigation. The area of that swamp or natural meadow, as I estimate it, would be possibly 20 acres. The new ditches were taken out there between the time that I was there in 1912 and the last time I was there. Those ditches out of Spring Creek are new ditches, built since 1912. I have seen the new development up above the Wine Cup ranch. It consists of newly plowed ground and stubble land. I have never had experience in estimating land and never measured any, but I would say there was somewhere in the neighborhood of 160 acres there. It was put under cultivation since 1912. It is above the old Wine Cup and kind of east. Some of it runs down the west side. Prior to 1912 below the Rancho Grande there was nothing irrigated except approximately 50 acres at the Wine Cup, there being now about 160 acres of new development made since 1912. I have been acquainted with the Rancho Grande since

the same year. There was a good deal of meadow land, hay land, there. I would estimate there was in the neighborhood of 100, possibly 150, acres in the upper field. There was some meadow in the middle field around the house, but I never saw any hay cut there. That was just used as pasture. There was some hay down in the lower field. I would estimate that there was somewhere near 80 or 100 acres cut there. When I left there in 1912 the acreage in the upper meadow was about the same thing, I would judge. There was just a little improvement made in the lower field. I believe there was a little more meadow the last time I was there in 1912 than what was there before. There was a little improvement in land being cleared. The place where the house is I never saw any hay cut between 1896 and 1912; that has always been pasture.

CROSS EXAMINATION:

I am interested in the waters of Goose Creek; I own some shares in the Reservoir Company, one of the plaintiffs. The occasion for my being up about Rancho Grande and the Wine Cup during those various years was that I have been in the stock business a number of years and before that I rode for the Jews Harp Company. I was never employed there by the owners of the place. I was never employed to do any irrigating or to put up hay there. I was employed by Mr. Worthington to work at his place which is possibly 15 or 16 or 18 miles further down Goose Creek. I never did any ranching much up or down the creek either one. I was there principally in rid-

ing, and camped there with the Wine Cup outfit. Sometimes I would be there a month at a time, or three weeks. I did not particularly pay any attention to irrigation on the Wine Cup in those days; nothing about more than usual to attract my attention. I didn't look the field over with the purpose of ascertaining the areas that seemed to be benefitted by irrigation. I didn't look it over for the purpose of determining whether there were any ditches there and if so where they were located. I did not do that at any time in any of those years. Fifty acres on the Wine Cup is all that I remember of seeing water on. I saw water scattered over some of it; that was on the east side of the creek. I don't remember if I ever saw any water on the west side. There were some spots of meadow on the west side. I don't know where the water came from that irrigated the west side, unless it came from overflow of the creek. I never saw any ditch built along the west side. I could only say I never saw any. I wasn't looking for any ditch. Altogether I would say there was possibly 75 or 80 acres of grass or meadow on the Wine Cup; that would be to the best of my judgment. I would hate to say how accurate I could estimate an area of two or three hundred acres. I think I could get within fifty per cent., but I wouldn't say that I could get within twenty-five per cent. of the area. I never have at any time looked over that field for the purpose of forming a judgment as to how much land there was in the meadow. What I have testified to is simply my casual observation

from having passed by or stopped there at the ranch, without having any purpose in ascertaining the amount of land. I never observed the ditches used in connection with the irrigation system on the Grande ranch in particular. I have seen the ditches. I know where most of them are. There are two ditches, as I recollect, comes out of the head of the field. They were above the house. I would say they were possibly three or four feet across. There are other ditches down towards the other end that comes along the other side. There are only two ditches that I remember on the upper field that takes out of the old creek and there is other ditches cut through the meadow used for irrigation purposes to get it onto the high land. All I recollect there are two ditches that communicate with the creek in the upper field. In the middle field there are ditches; there is one on the east side and as I remember it a kind of a slough on the west side that there was a dam in. I don't think it was a made ditch. I cannot recall any other ditches on the middle field. In the lower field there was just that ditch that extends down around the house and runs into the lower field on the east side. There was just one on the east side. I did see a ditch on the west side just recently. It looked like a new ditch to me. I never saw a ditch there on the west side from '96 to 1900. I never saw any meadow cut for hay over there. There was little spots there that was pasture. These are just estimates as to acreage. During the time that I was riding in that vicinity I pastured horses in the Wine Cup field. It

was fenced in. I don't remember of being in that section a year that we didn't use it either in the spring or fall. There might have been some springs we didn't camp there. I saw the Wine Cup field used for pasturing cattle, principally in the fall; possibly three or four hundred head at one time. Within the enclosure in the Wine Cup I would think there is possibly a half or three-quarters of a mile long and possibly nearly half a mile wide; it would possibly contain 160 to 200 acres.

RE-DIRECT EXAMINATION:

That place was used to bring principally beef cattle in while getting them ready to ship.

RE-CROSS EXAMINATION:

I don't think there was much improvement in the Wine Cup from between 1896 and 1912, if any at all. I would say that the area that was irrigated in 1912 was about 50 acres. I stated that there was possibly 75 or 80 acres in the Wine Cup field where there was meadow along the bottom, and possibly about 50 acres of it had been irrigated. It was the same in 1912.

W. M. WORTHINGTON, duly sworn as a witness on behalf of plaintiffs in rebuttal, testified as follows:
DIRECT EXAMINATION:

I reside at Oakley. I first became acquainted with the Wine Cup ranch in 1894, and was there practically every year after that. In that year there was about 35 to 50 acres of meadow land on the east side of the stream. That condition continued until a couple or three years ago. No hay was cut that I ever saw up to 1912; it was used for pasture.

CROSS EXAMINATION:

My father and brother used to run cattle there; that is what took me there. I was riding. I am thirty-six years old. I can recall the situation pretty well that was there twenty-one years ago. In stating that there were 35 acres of land altogether I am giving an estimate as I remember it. In years this side of that I don't know as I took any particular note, but I never seen no change in it. I would hardly think it was less than 35 acres; it might have been a little over. All of that was on the east side of the creek. There is more land on the east side of the creek included in the fences than there is on the west. On the east side there may be 160 to 180 or maybe 200 acres. Only approximately one-fifth of that was irrigated, or maybe a little more or less. I seen a ditch on the east side. All of the 35 acres was irrigated from the one ditch. It was a slough or a continuation of a plow furrow. It might have been a quarter of a mile long outside of the old field and extended maybe three-eighths of a mile down into the field and the slough, or maybe a little more. The slough was pretty good sized but the ditch wasn't much of a ditch. It looked like a plow furrow that might have been washed out a little. That is the only ditch, except there might have been a plow furrow out in the lower end. That would be a part of this ditch or combination of slough and ditch. I never saw anything at all on the west side. In 1894 I was there maybe two or three days. With the exception of two or three years I was there every year.

It may be a week or ten days sometimes, or sometimes two or three weeks, and sometimes a month, riding after horses. I was on the lands on the west side of the creek. I am not a stockholder in the plaintiff canal company. The Mr. Worthington who is mentioned as having made negotiations is a brother. I am not interested in the waters of Goose Creek.

FRANK BETZKE, duly sworn as a witness on behalf of plaintiffs in rebuttal, testified as follows:

DIRECT EXAMINATION:

I reside at Oakley and I am quite familiar with the district represented by the maps here in question. I first made my visit on Goose Creek I believe in 1899. With the exception of 1901 and 1914, I have been at the Wine Cup from once to three times a year. In 1899 the Wine Cup ranch was brush and no meadow land upon the principal part of the place. I didn't see the irrigation in 1899. The first time I saw the irrigation was in 1903; about 50 acres was irrigated at that time on the east side of the river. For a few years after that a diversion was about the same and the acreage practically the same until about three years ago, when new development was made there. No evidences of any hay cut there.

CROSS EXAMINATION:

I never was employed at the Wine Cup or Rancho Grande. I never had anything to do with the irrigation or putting up hay there. I worked in the Wine Cup outfits when they have been camped around both places. I can't say that I was interested in

how much land was being irrigated. I never looked over the field with a view of forming a judgment as to how much land was irrigated. I couldn't help but see the ditches. I believe I would have known where the ditches were. I never made an examination for the purpose of informing myself as to where the ditches were, or as to whether I knew where all of them were. I wasn't interested at all in the question of how much land was being irrigated in those days; I am not at the present time. I was there a week ago last Tuesday. I went out to look it over and see whether there was any additional areas under cultivation. I am partly able anyway to tell how much of the land that is irrigated now was irrigated prior to 1912. I haven't much experience, if any, to judge the size of land. I would say I never measured any land. I would say the Wine Cup field is three-quarters of a mile long and between a quarter and a half a mile wide. I would say there is 130 acres altogether included within the fence. I saw meadow land on the west side of Goose Creek in the Wine Cup field; there was 30 or 40 acres. That is not included within the 50 acres that I have mentioned. I have no knowledge of that meadow being irrigated. Never saw any water turned on it. Part of it was fairly good grass land. I never seen any ditches that carried water on that land. There is no ditch and was none prior to the last couple of years. I would have seen it if there had been. Possibly better than half of the west side of the creek grew hay or pasturage.

JOHN. C. BOREN, duly sworn as a witness on behalf of plaintiffs in rebuttal, testified as follows:
DIRECT EXAMINATION:

I am a little acquainted with the country in the vicinity of Wine Cup ranch. The first time I saw it was in 1897. I was at the ranch only once after that, about ten years afterwards. In 1897 the Wine Cup ranch was fenced and there was some natural meadow on it. I should judge about 50 acres was irrigated. In 1907 when I saw it it practically looked the same to me.

CROSS EXAMINATION:

In '97 I was there from the 1st of July until along in November. I had nothing to do with the irrigation of the Wine Cup field. The 50 acres of meadow land is on the east side. There might have been some on the west side: I never paid much attention. I see a swale that run down there that used to take and divert water out and on the east side. I never saw any on the west side. I never saw anybody engaged in irrigating the Wine Cup field from the swale or any other place. There was some kind of a dam in where this swale took out, but I never saw any other dams there. One time I looked for dams, just to see how it was irrigated. I went down there with Mr. Harrell one day when I looked at it he was talking of taking a ditch out. That was in 1897. In 1907 it was irrigated just through this here wash as I call it. I did not have anything to do with the irrigation that year and I don't know who did.

RE-DIRECT EXAMINATION:

I first became acquainted with the Rancho Grande in 1897. In 1907 I was there again. I was there a week ago last Monday. I was irrigating on the Rancho Grande in 1897. The upper field and lower field was cut over for hay in 1897. I guess there was about 200 acres cut in the upper field, and maybe 60 or 70 acres in the lower field. Nothing was cut in the middle field. The middle field was used for pasture. In the lower field on the west side lying towards the creek the hay was cut practically on the bench, which runs around from the top, and the other was grass and brush. When I went there in 1907 I couldn't see that there had been any particular change. The condition was about the same. When I was there the other day I wasn't over the ranch, but from the looks down in the lower field there was more ground cleared up there; looked to be maybe a little down in there.

C. A. McCLELLAN, a witness heretofore duly sworn, being recalled on behalf of plaintiffs in rebuttal, testified as follows:

DIRECT EXAMINATION:

I first visited the territory covered by Defendants' Exhibits 3 and 4 in September, 1912. Ditch No. 6, in section 19, on Exhibit 4, was not constructed at that time, but the slope stakes for the ditch were on the ground. I couldn't say as to Ditch No. 7, as I didn't go across the creek. With respect to ditch No. 5 there was no ditch there and I didn't see any cross section stakes. With respect to ditch

No. 9 I saw no ditch or cross section stakes. The condition at Spring Creek, as I saw it at that time, there was some alfalfa there. I would estimate it to be about 20 acres at that time. I didn't notice anything except alfalfa. I noticed a plow furrow right near the road where it crosses Spring Creek, and that was the only sign of a ditch I noticed at that time. There was no land in cultivation under it. This area marked in red on Plaintiff's Exhibit No. 13 was not cleared or cultivated in 1912. There were no ditches except this plow furrow which I noticed in the road. The ditch No. 10 on Exhibit No. 13 and on Defendants' Exhibits No. 3 and No. 4 was constructed at the time of my visit for probably two miles; it was newly constructed. Ditch No. 4 on the south side was cross sectioned, but not constructed. There was no cultivation under ditch No. 4 or No. 10. It was all sagebrush. Ditch No. 1 on Exhibit No. 3 was constructed in 1912. It was newly constructed and some clearing was being done, but nothing was plowed or had been put in cultivation. The condition at the Wine Cup ranch, as I noticed it in 1912, was simply an area included by fence, about half a mile long and probably a little less than half a mile wide. I went up the creek on the east side without crossing over to the west side, and I noticed no cultivation, simply a pasture. I could see no irrigated lands on the east side. Above the old Wine Cup where I have marked it red upon Plaintiffs' Exhibit No. 13 there was a force of men clearing a tract of about 40 acres in extent. I be-

lieve they were just commencing to break it. I didn't notice any ditches built to cover it. Since that time this additional tract of 40 acres has been put in cultivation, and an additional area of probably 100 acres. I would say that this new development is under ditch No. 13A and ditch No. 2 on Defendants' Exhibit No. 3. The condition on the Grande Ranch in September, 1912, as I saw it, consisted of a pasture and hay land. This was my first visit to the tract and I couldn't tell what development was new. I would be unable to state whether a tract on the southwest corner of probably 20 acres in grain at that time was on new or old land. This was the only grain that I saw on the ranch at that time.

BENJAMIN HOWELLS, heretofore duly sworn as a witness on behalf of plaintiffs, being called in rebuttal, testified as follows:

DIRECT EXAMINATION:

I am acquainted with the country covered by Exhibits No. 3 and 4, and have been for a good many years. I have been acquainted with parts of it since 1878. The ditch situated immediately above the Utah line was constructed, I think, in 1912. I have been at the Spring Creek ranch. There was a ditch constructed there, I believe, in the fall of 1912. I have been at the Wine Cup ranch. I think in the fall of 1912 there were some new lands being broken up in the vicinity of the Wine Cup. I haven't visited the Wine Cup ranch a great deal in late years until 1912. In that year immediately north of the old

Wine Cup field they were breaking up a tract of land of 40 acres or better, I would judge. I can't say what new development has been made within the last two or three years on the Grande ranch. The first time for several years that I visited it was in the fall of 1912. I could see no new development there, unless it was the breaking up of a small tract of land on the lower part of Grande field on the west side of the creek. I estimated that at 30 or 40 acres; maybe not quite that much.

CROSS EXAMINATION:

I am not prepared to say whether that was irrigated or not prior to that time. I only saw it from the road to the east of the ranch, some distance away.

RE-DIRECT EXAMINATION:

I distributed water in the early days down around Oakley under one of those decrees. The understanding that I had, the basis of those decrees was an inch of water to the acre.

W. H. MARTIN, a witness heretofore duly sworn, being recalled on behalf of plaintiffs in rebuttal, testified as follows:

DIRECT EXAMINATION:

I have been acquainted with the Spring Creek ranch ever since its existence. There was some land plowed up there and put into alfalfa. I should judge it was around 20 acres. I am not positive, but I think it was in 1904 or 1905. There is some little meadow land across in the Spring Creek field. There was a kind of a bog hole, or marsh, or meadow. It

does not require irrigation. I think there is two new ditches there, built in the last two or three years. I don't know just how long they are.

CROSS EXAMINATION:

I was just riding and camping on Spring Creek. I never had any occasion to make any particular observation as to the use of water there. There is very little meadow just along the creek on the same side as the alfalfa; there is none to speak of, very little, possibly five or ten acres. There was an old ditch that comes out of Spring Creek and comes around the head of the alfalfa as I remember it. I don't know how long it is, nor where its end is. If I remember there was just the alfalfa, about 20 acres, irrigated from that ditch. I don't know how much other land was irrigated for pasturage. I don't remember any ditches from the other spring. There are no ditches there that I know anything about. No hay was cut off that bottom that I remember. It was pastured off. Animals could travel over it. These lands, including the alfalfa field, was all under fence, as I remember it. I don't know how much land was under fence.

Thereupon defendants, counsel for plaintiffs consenting thereto, introduced in evidence a certain plat, marked "Defendants' Exhibit No. 5," showing the lands belonging to the defendant Vineyard Land and Stock Company, and it was stipulated by counsel for the respective parties, as follows:

It is stipulated between the parties hereto that the defendant, Vineyard Land & Stock Company,

is the owner by mesne conveyances from the original owners thereof of the lands conveyed by the Sparks-Harrell Company, situated upon what is known as Goose Creek and its tributaries, and elsewhere, in Elko County, Nevada, by deed of date October 31, 1908, records of said Elko County, Nevada, and as shown by abstracts thereof herewith tendered to the Court and counsel for use herein, and as appear in red on map marked Exhibit 5 herein, and together with any water rights used in connection therewith, the application for lands in Sections 35, 46, 68 North, in 47, 68 North, being original applications of Williams W. Williams, the application referred to being the application to the State of Nevada for the purchase of the lands in these sections, and embracing the lands in which the Rancho Grande and Wine Cup properties are located, were made as follows, to-wit: Sections 2, 13, 11, 12, original applications to State of Nevada made July 31, 1885; that of B. R. C. Avery to parts of section 2, 12, 13 and 24, in 46, 68, being made on the 19th day of December, 1882, and that of William G. Hanford to a portion of section 35, in township 47, 68, being made on the 13th day of December, 1883, and the application to the State of Nevada by S. M. Vance to a portion of section 35 was made on the 31st day of July, 1883, and the application to the State of Nevada by John Sparks for a portion of section 35 being made to the State of Nevada on the 25th day of September, 1882, and the application of E. R. Anderson to a portion of Section 35, in 47, 68 East, to the

State of Nevada, being made on the 5th day of January, 1884, with patents to all these lands issuing from the State of Nevada on the 24th day of May, 1909, these applications being the initiation of title and right and possession of the predecessors in interest of defendant Vineyard Land & Stock Company, as shown by deed to it of date October 31, 1908.

MR. HAYS: I don't know about the matter of initiation, but for what they are worth, subject to the fact.

C. J. GRIFFITH, heretofore duly sworn, being recalled as a witness on behalf of plaintiffs in rebuttal, testified as follows:

DIRECT EXAMINATION:

I am water master for the Oakley Canal Company; have been in that position since February 1st, 1913. Previous to that I was on the North Side Canal Company since the spring of 1909. I attended the Iowa Agricultural College at Ames, Iowa, and graduated there in 1899, with the degree of Bachelor of Agriculture. I taught in the college there in the dairy department for one year, after which I went to the Agricultural College of Colorado and taught for five years. Following that I irrigated a Colorado ranch for two years. I have studied and had experience in the growth of crops under irrigation. I have studied and observed the growth of crops under the Oakley project. The lands shown on defendants' exhibit 3 and 4 are 25 to 40 miles up the stream from the Oakley project. The Oakley

project is 4,700 feet in elevation at the town of Oakley, and the lands of the defendant are somewhat higher. The contracts in evidence fix a duty of water on the Oakley project at one and one-half acre feet per acre, annually. The duty of water on the defendants' lands should be fully as high as it is on the Oakley project.

CROSS EXAMINATION:

I owned a field pretty similar to the Wine Cup field for two years in the mountains of Colorado. I never irrigated that field myself. A field such as the Rancho Grande and Wine Cup fields in proper condition should be irrigated from four to five acre inches of water per irrigation. Assuming that it was necessary to continuously run the water over the land in order to produce the best crop, the amount of water turned out at the head would be about five miner's inches per acre continuously. That would be required to keep the water running over the land at all times. I have never made any experiments to determine whether it is necessary to keep water flowing over such crops as are produced on the Wine Cup field in order to get the best results. The only experiment I ever made along that line was over alfalfa. I never had any experience at all in irrigating wild grass meadows. I have had some experience in the irrigation of pasture lands generally. For the irrigation of pasture lands more frequent irrigations and more water is required than for the irrigation of wheat farms and oat farms. Ordinarily with grain land two irrigations are sufficient,

while from three to four irrigations are necessary for pasture land. I wouldn't say that twice as much water is needed for pasture lands as for wheat lands. Most authorities say two acre feet is required on ordinary pasture land. That will give four irrigations of six acre inches per irrigation. By pasture lands I mean up-land pastures, but I do not mean such meadow lands as the Wine Cup or Rancho Grande fields. I don't know that the rule is that pasture lands, the more the water up to five or six acre feet, the better is the crop. I would say that such is not the fact. I have never determined the maximum amount that might be used without detrimental effects. In giving two acre feet as the amount for the irrigation of pasture lands, the amount turned out on the lands and the amount consumed in irrigation should be the same. The irrigation should take place with not over ten per cent. loss. I did not mean evaporation. I meant waste from the ends of the fields. Including the evaporation on an ordinary cultivated field, where say two and a half acre feet is applied in four irrigations, it is estimated that about five or six acre inches will be lost during the season in evaporation. That would probably be slightly less than for pasture lands. The evaporation would be more from the fact that it was run over all the time I believe. I know that it would take about 40 acre inches per acre for the irrigation of the Rancho Grande lands, assuming that the water was turned over and overflowed practically all of the land say ten times during the irrigation season. If the

water was running continuously over it, you would have to have a diversion in the neighborhood of five miners' inches per acre running on and off.

RE-DIRECT EXAMINATION:

The duty of water has been a study since I entered the work of teaching agriculture in the Colorado Agricultural College. I would say, however, that I was at that time more particularly interested in live stock than I was in farm crops. However, we made experiments in irrigation. In 1909 when I went to work for the North Side Company I had charge of the agricultural department of the Twin Falls North Side Land and Water Company for three years. During that time we had demonstration farms and it was a subject of study for the three years that I had charge of that department. We were gathering data all the time during that three years from 1909 to 1912. I have since continued that on the Oakley project, which has a very high duty, I believe the highest duty in the state. It has been more or less a matter of experimentation. I have had occasion to carefully observe the crops and to note the amount of water used on the Oakley project. It is not necessary to have the constant use of water on a crop such as that grown on the Wine Cup and Grande ranches. Three or four irrigations would be amply sufficient in that locality on that character of land.

The plaintiffs thereupon offered in evidence the paper on irrigation investigations on Sand Creek, in Wyoming, by B. F. Fleming, Irrigation Engineer of the University of Wyoming, published in a report of

irrigation investigation for 1902, No. 2, beginning on page 101 and extending through to the end of that paper.

C. J. FRANKLIN, produced as a witness on behalf of defendants, being first duly sworn, testified as follows:

DIRECT EXAMINATION:

I am a civil engineer and have been engaged in that business for twenty years. I am not a college man. I was able to be tutored by a couple of college men for a couple of years. I have practiced my profession in this state for something over eleven years. I have had experience in designing and supervising engineering works and reporting on engineering works, and in direct charge of construction engineering in this state, for nine years out of the eleven. I am familiar with the Rancho Grande and Wine Cup ranches. I went over to investigate the ditches taken from Goose Creek. I made an examination with the view of determining the general conditions as to irrigation and the capacity of the ditches. I made an examination of two diversions at the upper end of the Rancho Grande on the east side of the stream and one diversion on the west side at the upper end. The upper one on the east side of the stream had a capacity of 30.2 cubic feet per second. The second one on the east side of the stream had a capacity of 63 cubic feet per second. The calculations are based on accepted formulas. The controlling cross sections are at the smallest section. These sections were taken at the small sections in the ditch, because

I considered them the controlling sections. The measurements as given by me, I am satisfied, conform to the carrying capacity of the ditch. I would say that these ditches had been constructed for a number of years; that they had been constructed more than five or six years, possibly ten or eleven, or a longer period of time than that. It is impossible for me to tell the age of the ditches by inspection, but from the growth of willows on the banks and the shapes of the banks themselves, and other conditions existing, it is quite evident to me that they had been constructed a number of years. I should say easily that they had been built prior to 1912. The willows that were growing on the banks were fifteen, possibly twenty feet high. I didn't actually measure them; I observed them. Inasmuch as the willows were on the banks of the canal and in line with it I would conclude that they had started after the canals were built. I was unable at any point to see both ends of the ranch. It was too big to estimate the area of irrigated lands under the ditches. I am sure that all of the lands between the ditches and the river are susceptible of irrigation from those ditches. Upon the Wine Cup ranch there were eight ditches taken out of the creek on the upper end. Two of them from the appearance were new ditches and I did not take them. I would say that there are two forks of the stream in the Wine Cup ranch. There is a dry ditch at the time which was taken out of this stream. It was an evidence of an old channel. This ditch was about six feet wide on the bottom and about three feet deep, and there is an

old dam just below it. I took no measurements on this. The ditch was there and I inspected it at the head and made a calculation as to what it would carry if it were filled with water. The size of the ditch was estimated and not measured, and inasmuch as I turned an instrument on the country and found it to fall about 25 feet to the mile, which is another estimate, I assumed that this ditch falls about 20 feet to the mile, and if used would safely carry 70 second feet. The dam I noticed was an ancient structure; it was broken when it was there and water was flowing through it. From the appearance of the timbers it was quite an old dam. Then on the extreme east side about the center of the Wine Cup ranch is another dry ditch, which at some time has been used in connection with an old channel that extends over there, and there is a two-way box there. That portion of the box extending into this particular ditch that I described was dry, and that was a larger ditch than the other channel. It was about ten feet wide on top and about seven feet wide on the bottom and four feet deep. Assuming the same fall that I did for the other one this would carry about 170 second feet, if used. So far as these estimates themselves are concerned of distances, I think I could guess within ten per cent. of ten feet or six feet or four feet, and the volume is based absolutely upon the computations used as per estimate. These estimated capacities are, I assume, within fifteen or twenty per cent. of accuracy. Where I have the cross section of a ditch and estimate, I could estimate the

mean capacity within twenty per cent. on canals of this size. On the two ditches I gave the estimates are calculated. The cross sections were estimated and the computations were based upon the estimated cross sections. Passing over to the west channel there is a diversion there from the left side of the west channel which I was not able to get any levels or data to base a computation or with respect to the slope. I measured the channel and the cross section of the ditch and estimated the mean velocity at a foot and a half per second, and based on this estimate this ditch would carry 7.35 second feet. This would be within fifteen or twenty per cent. of accuracy. The next ditch is a diversion from the left or east side of the right fork. This one I actually measured with respect to grade and cross section and computed the carrying capacity at 15.9 cubic feet per second. The next one would be a diversion on the west side of the west fork. It was a small ditch which I actually measured the grade and cross section of. It computes .85 of a cubic foot per second. The next one is a diversion from the west side of the west fork, lower down than the other. These are all in sequence down the stream. I measured the grade, slope and cross-section of this and it calculates 2.1 cubic feet per second. The ditches that I took were old ditches, not recently constructed. I based my conclusions as to the age on virtually the same conditions as existed above at Rancho Grande. The method of irrigation employed on both Rancho Grande and Wine Cup as I observed them while there is the broad or flooding

method of irrigation. The waste water ran into other ditches or sloughs and was carried by them and re-diverted and found its way into other ditches or sloughs. The custom was to put a dam in a slough and take out a diversion, which was spread over the land, and lower down, sometimes as close as 300 feet or so, put in another dam and take out another diversion, where the stream would have assumed virtually its normal size, at two or three or four hundred feet below the dam, and then take out another diversion and so on. One particular slough that I examined had seven dams in, in about half a mile. These dams appeared to be old structures. It was hard for me to say; they were built mostly of manure and brush and were evidently quite old. From my inspection of this slough and general inspection of the country I would be satisfied that all water not lost in natural losses was returned to the stream. I mean all except what was evaporated or absorbed by plant growth. I saw it returning in some places. There is a space at Rancho Grande that I noticed that was about a quarter of a mile from the stream, but there was one canal in that distance, the canal being about 700 feet from the stream, as I remember it. I have been designing irrigation works and supervising the construction. I have written a great many reports on irrigation works of one kind or another, and have been over a great deal of portions of southern Idaho and some of Oregon, and inspected these things from the point of desiring to be acquainted with the systems and methods employed in the appli-

cation of water. That was necessary in connection with my work as an irrigation engineer. From the observations I made of the lands and the method of irrigation employed on those ranches, it is my opinion that no other method of irrigation could be employed than that which is employed there. On the Wine Cup there was more than 50 acres in grass at the time I was there and susceptible of irrigation from those ditches. I should think there would be 150 or 160 acres. I have had some experience in ascertaining from observation the area of land in given tracts.

CROSS EXAMINATION:

There is one ditch, I think, on the Rancho Grande above those which I took, that I didn't find. The first one I measured at the upper end of the Rancho Grande was the second diversion above the house on the east side. It is there on defendants' exhibit No. 1 (indicating and marking with a cross the place where the ditch was measured). I took three sections of it, one section at 300 feet below the head, one section at 800 feet below the head and one section 1,000 feet below the head. I didn't get down a quarter of a mile; I took the controlling sections. I didn't concern myself with the diversions from that ditch; I don't know whether there were any or not. The ditch was seven feet wide on top, six feet wide on the bottom and 1.8 feet deep; the grade was 12.88 to the mile. The slopes were six inches in one-eighth (one foot and eight-tenths). I took the cross section of the ditch and the grade per mile, and multiplied the coefficient of roughness by the square root of the

hydraulic radius by the size of the slope. The coefficient of roughness was .03, I think; I might say that I used .03 in all of these ditches. I didn't observe the kind of country around there. There is some granite; as to whether it is contiguous right at this immediate point or not, I don't know. The upper ditch on the west side of the Wine Cup would be about six feet on the bottom; six feet on top and three feet deep. The one I estimated at 7.35 second feet is five feet on top, three feet wide on the bottom and one foot deep; estimated velocity of one and one-half feet per second. I do not see it on defendants' exhibit No. 1. The stream isn't like that on the ground. I had no map of ditches No. 2 and No. 3, and simply located the ditches in my notes. I do not find it on the map. The old fields that I saw there run in all instances bordered by a little bench just above the ditches. They have a slope from the ditches to the river on one side and on the Rancho Grande between the river and the canal on the west side there is a level space. I took a transverse section there; and then it slopes from that canal up to the limit of the irrigated area in a very general slope; no benches. On the outside of the ditches on the Grande Ranch the land rises a little bit; it is in a valley and there are hills on both sides. Below the house there is a bench, but not above the house. In the upper end the canals come right around the foot of the slope, close down, but there is no defined bench there. It is a slope from the canals in. The lands lying outside of the ditches are foothills, with more or less precipitous slopes. Those old

ditches took in the bulk of the land that could be readily irrigated. They went along the slopes of the foot-hills, the margin of the valley. The surface of the water in the river generally is a foot, possibly eighteen inches below the level of the surrounding country. There is no evidence of the ditches having been cleaned this year. There is no deposit on the banks or anything of that nature. The first ditch I gave at the Wine Cup on the extreme north end had a capacity of 7.35 second feet. The ditch on the east side of the Wine Cup and furtherest up, is a dry ditch with a capacity of 70 second feet; it didn't have any water in. This (indicating on defendants' Exhibit No. 3) looks more like it than anything else. I didn't follow it below the head. The slough goes to the east of the head of this ditch. The ditch on the west side of the Grande, furtherest up, has a capacity of 63 second feet.

EXAMINATION BY THE COURT:

By saying that no other method of irrigation on this land could be adopted, I meant under existing conditions, the natural, unlevel state. I meant that it would have to be flooded, and that the land is somewhat irregular and in its natural state would require the flooding system to cover it all. I don't see that any other system could apply and get the water over the whole thing. What I meant to convey was that the water would need to be spread over the surface under existing conditions; that is the only thing I meant.

RE-DIRECT EXAMINATION:

Q. Did your answer have any reference to the quantity of water that is employed there as well as the method of flooding it over the surface?

THE COURT: Of course, if you ask that question, I shall have to sustain the objection to it. I understood originally that your question merely sought to elicit the answer as to whether or not it was necessary to surface irrigate or flood the land. Now, if you ask him how much water is required, I shall have to sustain the objection that has been interposed, because the witness has not shown his competency to answer that question.

MR. SNOW: I am not quite sure that I understand your Honor, or that your Honor understands me.

THE COURT: Originally when you asked the question Mr. Hays interposed an objection, and I suggested that there could be only one answer to the question. I did not assume that the witness would answer the way he did. I supposed, of course, that he would say that there were other ways in which the land could be irrigated. Plainly he is of that opinion now, as I understand. That is, that the present method of irrigation could be varied. But he now states that he simply meant to say that under existing conditions you would have to spread the water over the surface of the land. Now, if you ask him how much water is required, as I understand you do, then I shall have to sustain this objection.

MR. SNOW: That is the point on which I felt that

I was misunderstood. I am not asking how much water is required in inches or in acre feet, but whether any less quantity of water could be used than they actually used.

THE COURT: How does he know how much is actually used?

MR. SNOW: He saw it. I am not asking him in acre inches.

THE COURT: Suppose he saw it on that day, how much better off would we be there? I don't know how much was being used on that day that he was there, or two or three days. Suppose you simply get into the record that no more is being used this week than is necessary, what inference am I to draw from that? Ultimately I must make a finding here as to the date of your appropriation and the amount you are entitled to. Those are the controlling findings. Now, how would this testimony contribute to—

MR. SNOW: It is possible that your Honor's latest suggestion, as I understand it, that isn't the point, however, upon which counsel objected, or on which your Honor first suggested that an objection would be sustained.

THE COURT: It was objected to as being incompetent, and I overruled that objection, upon the assumption that you were asking for an expression as to whether or not it was necessary to flood lands of that kind. I assumed that the witness would say that you could change the system of irrigation in its details, and hence some other method could be adopted for spreading the water over the surface, and I

so understand that to be the answer of the witness now, that you could change the location of the ditches, and you might spread the water in a different way, but it would be necessary to surface irrigate in order to raise crops there. Now, you ask him whether a smaller amount of water could be used than is being used, and you say you are not going to follow it up by showing how much is used.

MR. SNOW: That is correct.

THE COURT: Now, would we be getting along at all? What help would that be to me? I have in mind all the time, in hearing this evidence, how it contributes to the finding that I must ultimately make. Would it do me any good to have this witness say that less water could be used or no less water could be used than is being used this week?

MR. SNOW: I am not sure that it would, unless there were some assumptions that might arise that the method in use there was the same that had been used. It would be probably a remote presumption.

THE COURT: Even if I were to indulge that presumption, then would it help me? Of course, you have been using this water, as many pioneers use it in the West, in the easiest way, and without very much regard to the amount used, there being no interference. However, when I come to enter a decree here, I must make some provision not only for the amount, but for the measurement of it. Evidently some change will have to be made in your system, even though it be regarded as a proper system, but there must be measuring devices, and there must

be some method of determining whether or not you are taking more at any given time in the future than the decree awards to you, and I must award to you a definite amount and establish the dignity of your right, and the mere fact that water is being used today and has been in the past, and that you can't use any less, wouldn't help me. If you will call my attention to your view of it, I will determine whether I will permit you to go ahead.

MR. SNOW: I take it that the defendant in this case is not asking to have its title quieted. There is no purpose so far as our side is concerned in establishing the dignity of our right. This, so far as the defendant is concerned, is a suit in personam, and its only purpose could be to enjoin the defendant from interfering with certain stated rights of the plaintiff, as they might be established in this suit. Therefore, it occurred to me that there might be a somewhat different rule and a somewhat different burden upon the respective parties than in the ordinary water suit.

THE COURT: Reflect a moment, Mr. Snow. Why do you put in this testimony then at all? In this decree I must say to you, either you have no right at all, and shall take no water, to the disadvantage of the plaintiff, or I must say that you have a given right, which must be defined, which is either inferior to or superior to the plaintiffs' right. If I say it is superior to it, and define it, that would simply mean that you have the right at any time to take a given amount of water, to be stated, regardless of the re-

sult of such taking upon the use lower down by the plaintiff. I can't see how I am to render a decree here without making a finding as to what your rights are, unless I hold that the plaintiff has no rights at all. That would be the only assumption upon which—the only hypothesis upon which I could avoid making a finding as to your rights. Otherwise, how could I formulate an injunctive order or an injunctive decree? If I tell you that you have a right to do some things, I must define the things that you have a right to do, in order that you may know what your rights are, and not wittingly violate the order of the Court. Is that not true?

MR. SNOW: I think it is.

THE COURT: Then must I not make a finding as to the dignity of your rights, that is, the year from which your appropriation dates, as compared with the year from which the plaintiffs' right dates? It is true that by reason of the mere fact that you are a non-resident and the lands that you irrigate are part of another state, perhaps the decree would not be effective for certain purposes, in establishing your right in the other state, but if I do what you suggest I am called upon to do in this case, I must—if I am wrong in that I should be very glad to hear you, but if I am not wrong, I can't see why you put in any testimony at all as to your right. I supposed all the way through that you were putting in this testimony in order that I might know and find and decree what your rights are.

MR. SNOW: I will say to your Honor that a

great deal of the testimony which we expected to put in in regard to the scope of our rights has been excluded under the Court's ruling, and we find ourselves in rather an awkward position.

THE COURT: For example, what testimony?

MR. SNOW: The testimony of Mr. McClellan.

THE COURT: As to what?

MR. SNOW: I perhaps am speaking of the understanding gained from the other case tried just prior to this, where the same conditions practically obtained, but we offered the testimony of two witnesses who were engineers and who had had also considerable experience in irrigation and in methods of irrigation, and were attempting to establish the extent of our—

THE COURT: You mean the duty of water?

MR. SNOW: Yes.

THE COURT: I must regret that my ruling has been a disappointment to you.

MR. SNOW: I was explaining our theory. It perhaps seemed a little anomalous to the Court.

THE COURT: The objection to this question will be sustained.

C. A. McCLELLAN, a witness heretofore duly sworn on behalf of plaintiffs, being recalled in rebuttal, testified as follows:

DIRECT EXAMINATION:

"I have made measurements of Goose Creek above the points of diversion on the Grande Ranch and below the points of diversion on the Wine Cup. The first measurement I made was above the upper field

on the Grande Ranch at about the middle of section 26. This measurement was made above all diversions. It was made September 24, 1912. At that point I found a discharge of 7.6 second feet. There was water being diverted at that time in the west ditch, the diversion of which is above the upper end of the Grande field. I didn't measure the quantity of water in that diversion. At that time I measured no ditches. The next measurement I made was below both the Grande and Wine Cup ranches, but above Little Goose Creek, probably about 100 feet above where Little Goose Creek comes into the other stream. That measurement was made a little later the same day. The discharge at that point was 3.3 cubic feet per second. On June 25, 1914, I made another set of measurements, first measuring the extreme upper east ditch on the Grande field, this being ditch No. 15, as marked on the plat, about 100 feet above the Grande upper field. 6.8 cubic feet per second was the discharge at that time. This was 7:15 in the morning. Then I measured Goose Creek proper just opposite that point. This discharge was 17.2 cubic feet per second, at eight o'clock in the morning. The measurement of Goose Creek and that ditch would be the total flow of the stream above the diversion, by adding the two together. The next measurement was made at practically the same point as the measurement made September 24, 1912, near the mouth of Little Goose Creek, and just above the junction. This measurement was made at eleven o'clock on the same morning. The discharge was 14.5 cubic feet per

second. The only discharge of a ditch of which I made a measurement was the one just given as being about 100 feet above the Grande or upper field fence. I saw that the ditch was practically full. I had nothing but a current meter to determine the carrying capacity. The ditch was carrying 6.8 second feet. The mean depth of the ditch was .95 of a foot. I didn't make a current meter measurement of the ditch on the west side at the upper end of the Grande, but I noticed that it was running full and had a little bit more water, I would say ten second feet. In my judgment that is all it would carry safely. I would say that the ditch on the east side of the Grande running near the house when running practically full would carry about eight second feet. I didn't make a gauging of that ditch. Referring to ditch No. 10 on the Wine Cup, between 7 and 8 second feet would be an estimate.

CROSS EXAMINATION:

I testified that the upper ditch on the Grande ranch on the east side was carrying 6.8 second feet when I measured it. I estimated that it would carry 10 second feet at a safe head. By safe head I mean a quantity of water in a ditch which would not endanger the banks. I couldn't say that that bank is deeply and heavily sodded the entire length of it. There is some sod. I allowed one foot of free-board. I have never seen those ditches running bank full. I can't say that it is a fact that those ditches, with the banks embedded in turf, can safely run bank full in that country. They couldn't do so in the country

in which I have been working on account of badger holes and musk-rats. I would say that a foot is the least free-board. We estimate a two-foot free-board on all laterals except the extremely small laterals; that is at first construction. I have not been engaged in work on ditches running through very nearly level meadow land. My work has been in a new country. Allowing a one-foot free-board, I would say that Mr. Franklin's capacity of 30 second feet was too high. In my experience I would say that a foot of free-board would be the length that I would allow in a ditch of that character. The width of the ditch is 7.2 feet, practically to the water line. The slopes were practically vertical; probably six feet and a half in the bottom; there is little slope there; and .95 of a foot deep. I don't know the grade of the ditch. I can estimate the capacity from having taken a current meter measurement and having determined the mean velocity. I estimated that the velocity would be a little better than a foot and two-tenths per second. I would estimate the grade to be about fifteen hundredths of a foot per hundred feet; that would be about 7.82 feet per mile. I used thirty for the coefficient of friction. That is the same as Mr. Franklin testified to. On all our new ditches we estimate .025. This was in a little worse order and more of it grown to brush and rougher and I would use the coefficient of thirty. I would say that the water could be safely raised about three or four inches higher than when I measured it. That would be about 1.25 feet. I noticed that there was some gravel on

the bottom of the creek of the east fork in making my measurements. The extreme upper stream measurement I made in 1912 was at a place where the canyon commences to be rocky. The measurement I made below the Wine Cup took into account nothing except the actual measurement as shown.

Plaintiffs then offered in evidence plaintiffs' exhibit No. 24, being a tracing of the diagram made by Mr. E. C. McClellan, from his note-book.

C. J. GRIFFITH, heretofore duly sworn as a witness on behalf of plaintiffs, being recalled in rebuttal, testified as follows:

DIRECT EXAMINATION:

I was present with Mr. McClellan when he made the water measurements at a point above the Grande ranch and below the Wine Cup ranch, that he has testified to. It was in 1914. Water was being run in the ditches between those two points at that time.

PLAINTIFFS AND DEFENDANTS THEREUPON RESTED.

On motion of the plaintiffs, the trial of said cause was opened for the purpose of enabling plaintiffs to introduce certain additional testimony.

WHEREUPON, Benjamin P. Howells, produced as a witness on behalf of plaintiffs, being first duly sworn, testified as follows:

DIRECT EXAMINATION:

I have already testified that I had charge of the delivery of water in the Oakley district, under the decrees of the Court in 1887 or 1888, and that I have lived in that country ever since that time. In 1887

or 1888 and in the subsequent years in the Oakley district the people began using the water early in the spring. The condition of the spring would govern some, but as early as March or April, as soon as the frost would come out of the ground, they would run water over it for the purpose of soaking it up and keeping it wet as long as possible, and by so doing form a kind of a reservoir or stored the moisture in the ground in that way. The reason for that early use of water was that later in the season the water would be so low that there wasn't sufficient to properly irrigate the crops. The basis of distribution there was an inch to the acre. That was the head of water that was usually given to those people.

Q. Now, I believe you testified that the water users to the north, Mr. Thatcher and others, sold their rights to those people around Oakley, and that those people re-distributed the water among themselves. To what extent was that purchase made, etc.

MR. NEBEKER: To save time, your Honor, may I have the same objection, and an exception, as I have already made, the same objection as I have already made, with reference to there being no testimony in the record tending to prove that any of the persons mentioned in the decrees offered in evidence in this case were the owners of any water rights; merely to save time, and have the point saved in the record, without repetition.

THE COURT: Very well.

MR. HAYS: Of course we can present these deeds,

but you make no point as to these deeds, I take it, under our stipulation, I understand.

MR. NEBEKER: You introduced, I think, copies of the deeds, didn't you?

MR. HAYS: Not of these particular deeds. These were not introduced. This amounted to a change of water rights from one tract to another.

MR. NEBEKER: That is involved in your last question?

MR. HAYS: Yes.

MR. NEBEKER: Well, I don't know. It might, that question isn't now before the Court, as I understand, under our arrangements.

(Last question read.)

A. Approximately eighteen—between eighteen and nineteen hundred inches was purchased from the people living at the north end of the valley, and moved up the stream and used by the people in the vicinity of Oakley.

Mr. Howells (continuing): After that the irrigation of land all took place in the vicinity of Oakley and the lands further to the north were abandoned so far as irrigation was concerned after this purchase. An inch to the acre has been the general rule all over that country in decreeing water rights, but especially at Oakley, on account, as I have stated, of the fact that it needs a large amount of water in the spring of the year to flood over the lands and wet them up good because of the shortage of water later in the season. The 2,500 inches of water which the record indicates was in the stream in July would be

used, prior to this project being started, to irrigate the orchards, gardens and fall stuff. There would not be sufficient water for grain, hay or other crops of that kind. Irrigation of hay and grain necessarily took place before July; very seldom would there be any water to irrigate hay or grain after about the middle of June. In a way I am familiar with water measurements. I was the officer of the Court in charge of the work and had occasion to measure the water out to users in the district during the time I was in charge. I have observed measurements of water since that time and have assisted in measuring water some since then. During the past two or three years I have only assisted an engineer in measuring it; that was done with a water meter. I have also watched or been present when our engineers have measured over weirs, but the water meter is the most commonly used there now. I have seen it measured frequently enough so that I believe I can, upon seeing a stream of water flowing in a ditch, make a fair estimate of the amount in inches or feet. At the time I was distributing the water under those decrees we measured it under a different rule. At the time I was water master I never had measured water by a meter or through a weir. That mode was not known in our country, so far as I know. I measured the water in many instances through a measuring box under the rules of the Court under the decree. I attempted to ascertain what number of inches or second feet there was in a stream. I think I arrived at quite accurate results under the system

used at that time. There was a certain rule or box to measure the water in under the decree as adopted by the Court. I am only using my judgment now as to the average flow of the stream for many years back. I haven't any definite recollection of any particular measurement. From my experience, observations and practice, as I have stated, an inch to the acre, under the conditions existing there, was necessary in my judgment. They began to irrigate some considerable time prior to planting time. They poured onto the land all they could use while the water continued to flow in the stream. In July and later on they would have no water at all for anything except garden and trees.

JOHN ADAMS, produced as a witness on behalf of plaintiffs, being first duly sworn, testified as follows:
DIRECT EXAMINATION:

I have resided at Oakley for about 34 years. I reside under the canal systems which have been mentioned in the testimony. I have had experience for 33 years in irrigation in that district. I have been accustomed to have water measured out to me for use. I have had occasion to make or observe water measurements so as to know what an inch of water was when I would see it. I have had a certain amount of water dealt to me and I have used it on a certain amount of land, and in that way I have determined about what was necessary and what I have used.

Q. What was the method of irrigation in the Oakley district prior to the establishment of the present reservoir?

MR. NEBEKER: This is objected to as incompetent, irrelevant and immaterial, and on the ground that there is no evidence in the record tending to show that any of the persons who claimed water rights at the time now being inquired of were in fact the owners of any water right.

THE COURT: Overruled.

MR. NEBEKER: An exception.

Mr. Adams (continuing): The water being so irregular we had to use it very early in the spring and store it in the soil. Later in the season of course the water got low and was very limited. We used the water then for potatoes, garden stuff and our trees, but our crops were made on the early water. This water is known over there by the date of the water right. They call the Thatcher water 1875 water, some of it; the Tatro water as 1877 water, and so on. We didn't depend upon any water later than the 1880 water for making crops. I couldn't say how long the 1880 water lasted, I would judge though, not later than the 1st of June, ordinarily. I have farmed 80 acres of land over there. I had about 95 inches of water for my 80 acres. That was not all one date or one right. Since the decree of the Court this water has been measured out to me in definite amounts, by some measuring device under this decree. Since 1886 I have raised alfalfa and grain generally; beets since the reservoir went in, also potatoes, garden, corn and all kind of crops that way. The main crop has been alfalfa and grain.

Q. What have you to say as to the amount of

water which it was necessary to have under the circumstances existing before the building of the reservoir for the irrigation of the land in that district?

MR. NEBEKER: This is objected to on the ground that the witness has not shown himself qualified to answer this question, and it calls for a conclusion and an opinion.

THE COURT: Overruled.

MR. NEBEKER: An exception.

THE COURT: I think I will ask him one or two questions first, however.

THE COURT:

Q. Did you say that you had or had not seen water measured under some rule, and by some sort of a box or other device?

A. I have.

Q. Have you seen it measured?

A. I have.

Q. By whom—I mean by what officer?

A. The watermaster.

Q. Appointed under the decree of the Court?

A. Yes, sir. He was appointed, I think, by the Court, the watermaster.

Q. The Court directed him to put in certain boxes, did it?

A. Yes, certain length, certain width, certain fall to them, with a certain run of water.

Q. More lately have you not seen the water measured over a weir, as it is called?

A. Yes, sir.

Q. And you have known how much is reputed to

be going over the weir you have seen, how much the engineer has stated is going over the weir?

A. Yes, sir.

THE COURT: I think I will let him answer, gentlemen.

MR. NEBEKER: May I inquire?

THE COURT: Yes.

Mr. Adams, being further examined as to his qualifications, testified:

I have never done any measuring of water myself with a water meter. I have measured with a weir only in this way: that the weir is set by the engineer and the water is turned through and the measurements are there and I look at the measurements, and that is all I know about it. I noticed on the water gauge the depth of the water. I was not able to compute the quantity of water, only the way the engineer has arranged the weir and the gauge that is put on the weir. All that I know is just by the gauge. The gauge gave the quantity of water. If the water is running at a certain depth it is marked on the gauge and that means so many inches of water running. You can have from 10 to 100 and 150 inches running. I wasn't able at any of these times to compute the quantity if I were given the depth of the water on the gauge; not a scientific man; I have never done any measuring in that way. In determining the actual quantity of water that was flowing through a weir or other device I depended upon information received from somebody else. In the earlier days at the time the water was being distributed under those

decrees I had never seen any water measured through a weir nor by a water meter, and I didn't measure any water myself at all. I simply took the stream of water given to me and assumed that it was correctly measured. As to whether or not it would actually contain 95 inches I didn't know; I am not an engineer. I took their measurement for it. I took what I understood was 95 inches for my 80 acres.

THE COURT: I think I shall let him answer.

MR. NEBEKER: An exception.

Mr. Adams (continuing):

In my experience there it has taken an inch of water to the acre and I think I have used better than that. The character of the soil there differs some, from a foot to ten or fifteen or twenty feet deep. The old land where the water was used will range from eight to twenty feet. The purpose of irrigating so early and abundantly was that we had the water then and in storing it in the soil it acted as a reservoir and fed our crops until they were matured.

THE COURT: Do you desire, gentlemen, to dictate to the stenographer what your understanding was, the one that you stated preliminarily? He was not here.

MR. NEBEKER: I think it might be well.

THE COURT: You had better do it now.

MR. NEBEKER: It is stipulated between counsel for the plaintiff and defendant that the defendant may, if it desires to do so, offer additional evidence on or before the 14th of September, with relation to the duty of water on the defendant's property in Nevada,

and that if a hearing is set for that purpose at that time defendant may also cross-examine the witnesses who have testified at this hearing; and it is also understood that at the hearing on the 14th of September, or the subsequent hearing, the defendant may offer testimony in rebuttal of the testimony that has been offered here today, and the plaintiff will have an opportunity at the same time of offering testimony in rebuttal of whatever testimony the defendant offers at that time; and it is understood that at least five days' notice shall be given by the defendant of the date of the hearing, whether the hearing is had on the 14th or at some earlier date.

MR. HAYS: I believe that it is also understood that the order and bond may stand until the final determination of the case.

Pursuant to the above stipulation the further hearing of said cause was resumed.

LOWELL P. RASMUSSEN, produced as a witness on behalf of defendant, being first duly sworn, testified as follows:

DIRECT EXAMINATION:

I am twenty-four years of age, and reside at Salt Lake City. During the present summer season, commencing with the latter part of March, I had charge of the irrigation and planting of crops on the Rancho Grande. My irrigation included the Wine Cup field. I continued to work there until the first of August. Prior to this year I have had experience as an irrigator in the southern part of New Mexico, for about five years. I have observed irrigation in Colorado,

my home state. I had about 250 acres of land in southern New Mexico. I turned the water out on the Rancho Grande and the Wine Cup fields in the latter part of March of this year. In parts of the meadows the water was taken off at periods and other places it was run continuously. I observed the effect upon the vegetation there when the water was taken away from the land for different periods. According to my observations water could be taken from the land after it had been irrigated about four days before the hay would suffer. At the expiration of that time the ground would commence to dry and the grass began to wither. I made observations for the purpose of determining whether the crop was as good on lands where the irrigation is continuous as it was on lands where the water was applied every four days. Where the water was flooded continuously there was a good deal the best crop of timothy hay. During the year 1915 there was a part of the land that was not watered as often as every four days. The longest interval I know of any part of the land not being irrigated was about six days. On the land that was not irrigated for intervals of six days the crop was stunted. The soil appears to be very porous there. It is loam with gravel underneath. The first irrigation required about three times as much water as the subsequent irrigations. The snow was off the ground when I commenced irrigation in the latter part of March.

CROSS EXAMINATION:

The method of irrigation was by flooding the land. It was not possible to use any other method on those

lands. They were not level enough so that any other method could be used. I don't think any of the land had been made level; it appeared to be in its natural condition. There was some native grass at the Wine Cup. Generally speaking my testimony refers mostly to timothy. I did the work myself. I know nothing about the measurement of water. In a day of twenty-four hours I would irrigate something like 25 to 40 acres, I guess, by flooding. There was one man helping me, and the two of us handled the water. We did not turn it off at night. I would think that the average depth of the loam was about 18 inches, with gravel immediately underneath. The depth of the ground water varies according to the time of the year. After the irrigation the water is on top; then if it is turned off the water goes down. At the end of four days it would be about two feet below the surface, I believe. I don't know where it would be at the end of six days. I would say that the surface of the water in the channel is about four feet below the general surface of the land. I think I turned the water on sometime between the 20th and 30th of March; it was right about the 25th, but I wouldn't say whether it was before or after. I haven't been on this ranch before this year. There was a piece of ground on the east side of the upper field at Rancho Grande where I turned the water off and on every four days after the 25th of March. That was on all the east side of the creek, including a portion along the creek as well as a portion further back. With reference to the location of the ground water I did

not base my testimony on any experiment I made; it was just a guess. With reference to the amount of land that I irrigated in a day, I stated it to be from 25 to 40 acres, but that was just an estimate; I did not estimate it with any degree of accuracy.

L. W. BEASON, duly sworn as a witness on behalf of defendant, testified as follows:

DIRECT EXAMINATION:

I was at Rancho Grande during this year from about the first of August to about the 8th of September. I am twenty-seven years of age; I am a civil engineer; I was graduated from the Massachusetts Institute of Technology in 1913. Since that time I have been doing surveying, some construction work and water measuring entirely connected with irrigation. I am familiar with the modes of measuring water. I know how to measure water with a weir and am familiar with work of that kind. I have been engaged in that work for almost three years. I was at Rancho Grande at the time a small parcel of land was irrigated between the 28th of August and the 7th of September. The water placed on that parcel was measured by me. The quantity used was 13.6 acre feet, during 9.9 days. There were men in charge of the irrigation and I observed whether the water was being turned and used to the best advantage. It was handled so as to run over as much ground as possible. There were seven and a half acres in the piece that was irrigated in that experiment. For one irrigation of that piece of land it would require 1.8 acre feet. While I was there I examined some test

pits that had been dug and bored, and a borrow pit where dirt had been taken to build a levee for a stream. I examined the channel of the stream or cuts down through the Rancho Grande and the Wine Cup. The surface soil there is uniform and the subsoil is practically the same on both ranches. The surface soil is sandy loam, and it is very porous to water. Under the sandy loam in places is a layer of sand and then in other places immediately under the sandy loam is very coarse gravel and rocks. I did not find any impervious stratum in any of these pits or excavations. I don't know how deep the gravel is underneath the surface soil. I would say the average depth of the surface soil was about two feet; it varies from six inches to four feet. I did not notice the irrigation that took place on the different parts of the ranch; I didn't have anything to do with the irrigation.

CROSS EXAMINATION:

The seven and a half acres was on the east side of the upper field, above the house at Grande. It was a little south of the line drawn across the middle of the field, that is, in the south half of the field and on the east side of the stream, and immediately under the ditch that goes around the east side of the bottom land there. The land extended from the ditch down to within about 300 feet of the stream. This piece was about 800 feet long and about 350 feet wide. The method of irrigation was by flooding; the corrugation method was not tried. The ground is uneven and in its natural condition. There didn't appear to have

been any levelling of the ground. I didn't level the ground off before I made the experiment. The crop there was native grasses and some timothy. There was a strip immediately under the ditch on the east side where the native grass predominated, and the rest of it was timothy. When we started out to make the experiment we took a head of about three-quarters of a second foot. To distribute that body of water there was a ditch run along the upper side of the tract of land and the water was turned out of it and run over the land towards the stream. This was the ditch that serves the entire field on the east side. To the west of the ditch the stream is probably about 1,000 feet away. We had this strip about 800 feet long and about 350 wide in between. In turning the water out we dammed up this main ditch and ran the water over the banks. On this strip 350 feet wide by 800 feet long there were rather small ditches. I don't know how they were made originally. They looked like they might have been plow furrows. They took the water out on any little high places, and then half way across the tract toward the stream there was an old road, in which the water collects and forms a sort of a lateral, and the water was redistributed from that when it got down that far. The only ditches there were took the water out on the high points. The system used was just simply flooding in that way. The length, about 800 feet, of the strip was along the ditch. Then the strip extends down from the ditch about 350 feet. It required about six days for the water to reach the opposite side of the field, 350 feet

away. In places it got across in three days. This water was turned out in very small streams along this strip; first along a strip 500 feet long in several very small streams, and it took about three days to get down about 350 or 400 feet. The original intention was to irrigate a strip clear across to the stream, but when it got down this far we didn't have enough water to get any further with; there was such a small stream that it run in the ground. So then we diverted it along another strip down the ditch making a total length of 800 feet. We had about three-quarters of a second foot and it was turned out equally in five or six places along the ditch. Along close to the ditch I should say that the surface loam was about a foot deep and was very porous. We didn't try irrigating with a larger head of water. We didn't have any opportunity.

RE-DIRECT EXAMINATION:

We were confined at that time with reference to the quantity of water by the injunction order of this Court, to only one-fourth of what the stream contained at that point.

RE-CROSS EXAMINATION:

At that time the stream varied, but there was around the neighborhood of four second feet above the field. I don't know what the fall of the land was in the direction in which we were irrigating, but I would guess that it would be about two feet in a hundred for about 150 feet from the ditch, and then it slopes more gradually from there, it wouldn't be over half a foot in a hundred. I didn't observe as to how

far the water went the first day, or the second, across the tract. The stream seemed to trickle down out of sight pretty rapidly in that experiment.

RE-DIRECT EXAMINATION:

That particular piece of land is smooth, level hay meadow. I don't know of any process by which this land could be put into shape so that it could be more readily watered than it could be in its present condition. There is nothing about the unevenness that would interfere with the irrigation of it.

EXAMINATION BY THE COURT:

The idea was to irrigate this land exactly as it had been irrigated during the past summer. I have had no practical experience myself as an irrigator. Assuming that we had divided this tract of 800 feet long in sections 100 feet wide, which would give eight sections 100 feet wide, and we had put all of the three-quarters of a second foot upon one section at a time, in other words, if, instead of spreading it out through this long ditch over all this long piece of land, we had used this entire head of water upon a strip 100 feet wide and 350 feet long, in half an hour the land might have been covered, but it is my opinion that with this slope of the land, if you turn a second foot out so much at one place it would damage the field; it would make a wash in there in that loose soil. It is sodded and possibly it could be handled, but it would keep the irrigator very busy to do it. If the strip of land had been twice as wide as it was, the water would have never got across. I don't think that we could have irrigated the whole tract in the

course of a few hours, if, instead of cutting it into eight strips 100 feet wide, we had divided it every 50 feet lengthwise of the tract, so that it would only have to travel over a space of fifty feet. As it was the water would keep sinking away instead of spreading out over the land. The larger part of it disappeared into the ground.

RE-DIRECT EXAMINATION:

We didn't make any observations before the irrigation started as to the water plane, but after the irrigation the water plane was at one place at the level, on the surface of the land; in other places it varied from six inches to a foot.

E. C. McCLELLAN, duly sworn as a witness on behalf of defendant, testified as follows:

DIRECT EXAMINATION:

I have testified in the former hearing in this case. I was at Rancho Grande on the 27th and 28th of August, and there again on the 7th, 8th and 9th of September. The irrigation that Mr. Beason has testified about was made under my direction. I instructed the man who had irrigated the land to irrigate as much land as he could with the water supply he had, in exactly the same way he had done during the season; that is, placing the same amount of water on the land, and turning it out from the ditch in the same amounts. I was not there during all the time of this experiment. I had nothing to do with the measurement of water which was used. I assisted Lew Beason in making the measurement of the land irrigated. For the purpose of determining the char-

acter of the surface and sub-soil, I had several holes sunk with a post-hole digger, as far as they could be sunk, and then I had two pits dug with pick and shovel, on different parts of the land at Rancho Grande in the same field as the irrigating was done. The post-holes there were dug around the exterior of the irrigated land. One pit was dug on the east side of the creek, about a quarter of a mile above the irrigated land, and the other on the west side of the creek, perhaps 100 yards away. Two holes were dug with a pick and shovel and five with a post-hole digger. The top soil in those holes for some twelve inches to two feet was a sandy loam; then came the fine sand lower down, with some stones in some of the pits. Below that was the water gravel. The holes were 42 to 54 inches deep. From my recollection of the Wine Cup field, where the creek is cut down to four or five feet in depth, the formation there is very similar to what it was on the upper field at Rancho Grande. I would say that what we found in those post-holes is characteristic of the formation all over Rancho Grande where the meadow lands are. In some places it was gravel from almost the top clear down as far as there has even been any cutting. In one of the pits I dug we had over two feet of fine loam, and then struck the water gravel immediately under that. There was no fine sand between the loam and the water gravel. Soil of that character takes a large quantity of water. It is what you would call porous soil.

CROSS EXAMINATION:

Water would run through it readily. One hole was located at the southwest corner of the land that had been irrigated on the east side of the creek, I should judge about 400 feet away. In that hole there was 24 inches to fine sand. At 44 inches there was coarse sand; at 47 inches there was rocks and we couldn't get any deeper. We struck boulders so the post-hole digger wouldn't go through. The next hole was located at the southeast corner of the tract that was irrigated, about 200 feet from the ditch and about 600 feet from the creek. The land that was irrigated was in the shape of an "L." The southeast corner was quite a ways from the ditch and below where the water had been turned out above. The base of the L, the long way, was on the side to the creek. The top of the L was on the ditch side. It was the road going through there that created this L. In that hole there were 14 inches to sand; 24 inches to coarse sand, and at 54 inches we struck something down there that seemed to be rock. The top soil was shallower than it was in the first hole. The next hole was about 100 feet east of that, and was a little bit that was being irrigated from water from the upper tract. My instructions had been that just as quick as the piece of land they had under irrigation had been irrigated as thoroughly as it had been during the summer season, to then turn the water down on another piece and irrigate until I came, to see how much land we could cover; and this was a ditch

that extended to the lower part of the L, about half way down. This third place was you might say on a line between the first and second, up the ditch. There it was sandy loam. At 26 inches it commenced to get moist; at 40 inches we got gravel. At 42 inches we struck hard pan, or rock and had to quit. The next hole was about half way along on the west side, towards the creek and half way up towards the upper end. It was perhaps 350 feet from the ditch and perhaps a little further from the creek. It was sandy loam to 32 inches, and sand and gravel down to 47 inches, and then from 47 to 50 inches it was pretty good sized stones mixed with gravel, and then we struck something larger that stopped our post hole digger. The next one was at the northwest corner of the irrigated tract, about 300 feet from the ditch. It was sandy loam down to 14 inches; then it was sandy or sand down to 37 inches, when we struck gravel and stones; at 44 inches we were stopped by striking rocks.

CALEB TANNER, being duly sworn as a witness on behalf of defendants, testified as follows:

DIRECT EXAMINATION:

I reside at Provo, Utah; am forty-six years of age; am an irrigation engineer. I was graduated from Harvard University in 1895 with the degree of Civil Engineer. Since graduation I have devoted practically all of my time to irrigation engineering. I was with the United States Geological Survey from 1899 until 1903; with the United States Reclamation Service from 1903 to 1905; State Engineer of Utah

from 1905 to 1913. From 1913 until the present time I have been connected with two irrigation companies in Utah, the Provo Reservoir Company and the Utah Lake Irrigation Company, largely in an advisory capacity, and detailed particularly to furnish and collect evidence with referense to the duty of water. I have read the literature of the subject and have become acquainted with all of the experiments made by the several agricultural colleges of the arid states, and also the general texts that have come from irrigation engineers and experts, government officers and private individuals. There has been no part of the time since my graduation for the last seventeen years when I was not engaged in some capacity in connection with the use of water. The character of irrigation in vogue in the different places where I have made investigations has included the irrigation of grains, forage crops and fruits, and practically all kinds of crops grown in the Great Basin. My investigations have extended with an entire degree of intimacy from the extreme south end of Utah to the extreme north end, a distance of 300 miles. In the course of my investigations I have had occasion to determine the quantity of water that was necessary to produce hay crops, forage crops, such as alfalfa, timothy and natural meadow. These particular investigations I carried on in the Sevier Valley, between Panguitch and Circleville, at an elevation of six thousand and three or four hundred feet. There is a considerable stretch of native hay meadow at that place. My observation was confined

to the areas under two ditches that were in the vicinity of a little town called Cleveland, the area being approximately between two and four hundred acres. I measured the volume of the water in the canal. The area of the land that was served by the ditch I obtained from the report of the owners or water masters, and the particular information with reference to the rapidity of irrigation I obtained from observing the progress the irrigator was making during an interval I was in the vicinity. At that time I ascertained and determined approximately what the duty of water was for that area and for that kind of crops. I investigated with reference to forage crops, especially native hay crops and timothy, in the area known as the Provo Valley. That is in the mountains east of Provo, at an elevation of five thousand and two or three hundred feet. It was timothy and red top meadows. I carried on investigations there for two years, 1913 and 1914. When I began there I was in the employ of the Provo Reservoir Company, and made the investigations for that company. The Provo Reservoir Company is plaintiff in an action seeking a settlement of claims to the use of the waters of Provo River. The owners of land in this area were claimants and we were seeking to determine the extent of their reasonable necessities to grow forage crops in that area along the stream. I was endeavoring to find out whether they needed all of the water that they contended they needed up there. There was a conflict of interest between the Provo Reservoir Company and

the farmers using water on those hay lands. From those investigations I gathered sufficient data and found out to my own satisfaction what the reasonable duty of water was on those lands. I have seen Rancho Grande and Wine Cup. I was there the latter part of last week and the fore part of this week, for two days and a fraction. I went over the upper field above the house, the Rancho Grande field below the house, and the Wine Cup field. The soil is sandy loam for an average depth of about three feet; the sub-soil is gravel; I don't know to what depth it extends. I made observations as to the location of the ditches on those properties and the lay of the land, the irregularities, if such existed, in the surface, and conditions that would affect irrigation there. My purpose was to form some basis, so far as I was able in that interval, for a judgment as to the requirements of that land to grow the kind of crops that were on the ground. I had sufficient time to look over the superficial conditions, the general soil conditions and the character of the crop that was grown there. I looked at the ditches and their location with reference to the surface of the land, to determine whether or not they were reasonable well adapted to the irrigation of those lands, economically. They were adapted to the irrigation of those lands. I would say that so long as the lands are used for the growing of forage crops, such as exist there, that no other system of irrigation or ditch construction could be adopted by which an appreciably greater economy in the use of water

could be brought about on the east side. On the west side of the upper field, particularly in the upper end of the field, considerable improvement might be made there at rather a high expense. There are some rather strong irregularities that make the use of water less advantageous than it would be, as it exists at the present time. I mean by plowing it up and levelling down the land and re-seeding it. That is the only way it could be done. On the Wine Cup field, if the diversions were concentrated in the upper end, and the crossing over the natural sloughs made with structures, in my judgment it would economize the use of water down there. I understand the elevation of land to be in excess of five thousand feet there. I would say that irrigation should be commenced there not later than the 1st of May. Irrigation of the land would be profitable as early as you could get the water. There is an advantage in irrigating grass lands before the frost is out of the ground and before the plants start to grow. The physiological reasons for that are obscure, but it is a certainty that the plant is benefitted. Those grass lands that receive early and copious irrigations make better forage and greater hay tonnage than if that is omitted, and they are only treated with water at such time as the soil moisture is reduced so that it is below the best condition for growth, so far as the presence of water is concerned. Now there may be some injury done if the water is kept continuously on a very tight soil, but it is recognized that on a well-drained, open soil, that the application of water,

even before the time that the plant requires it for the absorption into the tissues of the plant, is a benefit and a very important benefit, to the plant. The explanation as to why that is so isn't determined exactly. There are several theories covering it, but it is a matter of practical certainty that the result comes, better forage and better grass, with early irrigation. Assuming that the snow goes off about the middle of March, or the latter part of March, I would say that irrigation shouldn't begin later than the 1st of May, so far as the necessities of plant growth are concerned. The benefits that come from early irrigation are rather incidental. They consume a great deal of water without a very large compensation for its use. They bring some advantage to the plant of importance, not very great importance, and they are not necessary to the life of the plant. As soon as the plant starts to grow it needs moisture. There is in that section some water that is present in the soil from the winter precipitation, and in these mountain valleys it is ordinarily sufficient to supply the plant, so far as water supply is concerned, but if that water is standing in the soil without movement, the roots of the plants lodged in it, as soon as they start to grow, have no body of oxygen to perform their functions with. If you put on some water and start the circulation you carry in air with the water, and the plant will start green quicker under irrigation before the first of May than it would if you let the soil remain with only the natural supply that came from the clouds in the form

of snow or rain. My judgment is that in that character of field, with good drainage like that, some advantage would be done to the crop by irrigation as early as March, but it wouldn't be necessary for furnishing the water supply for the crop growth, because there is sufficient in the soil. These other incidental advantages would be brought to the crop by this earlier irrigation. If the winter snow fall and rain fall isn't sufficient to fill the soil with the water content that it will hold, up to four or five inches per foot of soil, then it ought to be irrigated, because four or five inches in a foot of soil is necessary for the most satisfactory growth of the crop itself. Ordinarily at an elevation of five thousand to fifty-five hundred feet the hay is cut in the month of July. Irrigation is reasonably necessary after the hay is cut for the growth of pasturage. It is almost universal that these fields, devoted to these hay meadows, are valuable for pasturage after the hay is off, if they are kept growing to get that advantage. The water is kept on as long as the frost is out of the ground. I should say that irrigation could be ordinarily advantageously applied at least until the 1st of September, and might in many seasons continue for some period after that. I think I have a fair judgment from my observations there at Rancho Grande and from my investigations of other tracts of a similar character in different parts of the country, and from my knowledge in general, as to about what the duty of water is for the irrigation of those lands. In my judgment it would be

four acre feet per acre. The duty of water when it is spoken of in acre feet ordinarily is the application of the water to the surface of the land; when you speak of it in second feet you mean the diversion from the natural stream. In ascertaining the number of second feet that should be applied to land it is necessary to take into consideration the necessary losses in getting the water onto the land; also some lost running off the land at the ends, and things of that kind. In estimating four acre feet I do not take into consideration any of those losses. It is water actually applied to the land.

CROSS EXAMINATION:

My education at Harvard was conducted along the lines of civil engineering and not along agricultural lines. After leaving Harvard I was engaged in teaching for a year or two, part of the year, and part of the year in agricultural work, as a farmer, until 1899, when I entered the service of the United States Geological Survey. I was with the Survey until 1903 and after that with the Reclamation Service. Then I was State Engineer. I can't say when I took up the question of the agricultural problem with respect to the duty of water. I had been raised on a farm, knew what the duty of water meant, and had paid some attention to the literature on irrigation when I was a very young man. I carried on detailed experiments from as far back as 1899. For the irrigation of this land I would approve of the flooding method. On tracts like this one man should handle about four or five cubic feet of water a second.

That, I think, would be a desirable head to handle. There are some exceptional areas there where a greater head might be thrown out, but the desirable amount I think to be put in one man's hands shouldn't exceed four or five second feet for the best results. By taking four feet, for instance, the area one man could get over in twenty-four hours would depend a little on where he was operating. He ought to get over the ground with an application of four to six acre inches per acre of land. That is usually considered a pretty fair irrigation and is a fair standard. The use of a large head of water is sometimes to get speedily over the ground, and sometimes there are other justifications. If you have a steep sloping ground it would be very undesirable to use a big head. Sloping ground exists there in some cases. Some areas of considerable extent all along the east side of the upper field and along the east side of the field below the house, the slopes are steep and the irrigation head used should be small for each opening. The land is also sandy on the east side of the upper field. I don't think that it would be desirable to make a run in excess of about 200 or 225 feet. Then you come to the relatively flat body of the meadow, and that could, of course, be irrigated by bigger heads, let out at openings there it most conveniently could be applied. The east side of the upper field is rather an unfavorable point on the property for irrigation; you couldn't use as large a head there.

My judgment is that, based upon experience in

like elevations in Utah, that ordinarily to supply the water required for plant growth, the land should be irrigated about the 1st of May under normal conditions. This year was really an unusually dry year all over the country. I would not irrigate it the last time in July; it ought to be irrigated if the best results are to be had from that character of crop, until in September. For the production of the hay crop irrigation in July would probably be the last irrigation. I would say sometime between the 5th and the 20th of July. I would say that the hay would be cut from the middle of July to the 1st of August. If the land had been irrigated with application of four to six inches, I don't think it would take over two or three days to dry it out so that they could cut it. They could begin haying at any time after the 15th of July. The grasses there are largely native grasses, or native meadows. The crop that was taken off was there in stacks, scattered out among the willows and in uncut places. It is red top, wire grass, clover, timothy, part native and part of it you would term tame hay; it was a mixture. The mass of the roots of the plants in two places where detailed examination was made, where the meadow was in good condition, reached down to about a foot and a quarter. Some root extension was observed as far down as two feet and a quarter, but that character of crop is a shallow-rooted crop. When fully saturated that soil will hold about five inches of water, or about 35 to 45 per cent. by volume; it would be I should say up to 25 per cent. by weight. I am familiar with the

discussion of the question of the amount of moisture that was most satisfactory for the growth of a plant. It entirely depends upon the character of the soil. In a sandy loam the optimum is about ten to fourteen per cent. dry weight. I made observations to see where the water table is there. There was irrigation in the Wine Cup field that I observed. In 1914 I had five or six fields in Utah. The water used upon those fields, measured every time the irrigation was made for the year: One was the Hansen tract, five acres of land—this is from memory, I do not have the detail here—about two acres of alfalfa, a strawberry patch, a raspberry patch, a potato patch and corn patch. The alfalfa was watered every six and three-quarters days. The application of water ranged from two and a half to three inches to the application. The mountain meadows examined at that time were further away. I have carried through no detailed systematic experiments with the meadows. It was a matter of occasional observation, more or less. It depended upon the report of the irrigator or water master. For such land as would produce a good crop of wheat in the vicinity of the Grande and Wine Cup ranches, it would require about three acre feet; I think it would take 25 per cent. less for wheat than it would for those other crops that are growing there now. It would require about the same for oats as for wheat. If I were going to grow wheat there, I wouldn't irrigate it ordinarily until it had got a fairly satisfactory growth, up in the neighborhood of the 15th or 20th

of June. On a sandy loam I would irrigate every eight or ten days. You can't very well talk about the needs of the plant unless you speak about the avenues to get the moisture to it. In some of these valleys they can plant their crop in the fall, and in some they can't. That is rather a local matter, as to whether you can make a successful fall planting. For fall planting I don't think it would take as much water as it would for spring planting, to get a fairly vigorous plant growth in the fall of the year. I should say the grain would be harvested sometime in the neighborhood of September, probably the last week in August. Spring oats or wheat would ripen somewhere about the first of September. Fall grain ought to ripen about a couple of weeks earlier.

There is a work of first importance on irrigated farming, written by Mr. Hillgard. It is "Hillgard on Soils." Mr. Hilgard treats of agriculture under irrigation with great detail. It is entitled "Hillgard on Soils," but it has all this other matter in it. King, the professor of agriculture in the University of Wisconsin, writes four works on agriculture, with which I am familiar. There are seven or eight bulletins of the Agricultural College of Utah bearing particularly on this question. I am not familiar with Dr. Widtsoe's book, but I am familiar with his bulletins. Dr. Widtsoe is a recognized authority on the subject of irrigation. He has conducted a great many experiments at Logan. I am familiar with the publications of the University of Washington, at Corvallis, and those issued by the Agricultural Col-

lege of New Mexico, and with the agricultural publications of those stations. I am familiar with Dr. Fortier's book on the use of water in irrigation. I am not familiar with Professor Olin's work on irrigation farming. I have a good many of the publications of the University of Idaho, but I don't recall that publication. In some instances Professor Olin is right where he states in his work on American Irrigation Farming, at page 270: "The practice of flooding these native meadows for weeks at a time is prejudicial to the best growing of the cultivated grasses seeded in the native sod. It drowns out the most desired grass and encourages weed grasses of little economical value for hay. Some of the finest of wire-grass meadows produce a hay which sells above the best timothy in markets where its feeding value is known. These native wire-grass meadows, which require a large amount of water to produce the best growth, have been most seriously injured through over-irrigation." Where the soils are tight soils, and the drainage is poor, Mr. Olin is exactly right. Where the soils are open and the drainage good, he is wrong. The wire grasses are in great plenty in the lowest part of the Wine Cup, in the upper end.

As to Dr. Widtsoe's statement at page 280 of the book called "Principles of Irrigation Practice": "These and other grasses, especially the native grasses, are often grown on the large ranches of the West. One crop is ordinarily harvested and the aftermath pastured. As early as possible in the spring,

these fields are covered with immense quantities of water, which often stands for days, 1 to 2 feet deep. It is believed that under such conditions the frost is taken out of the soil, and a larger quantity of hay is obtained. The experiments at our service indicate that all hay crops are injured by an excess of water, and that the best yields are obtained only by moderate irrigations. The immoderate use of water on such ranches should be discontinued, for it is an absolutely senseless practice." I don't think that statement is correct; it would be against my judgment, so far as my experience goes.

Irrigations are given primarily to supply a deficient water requirement in the soil. The benefits of earlier irrigation are outside of that benefit. If the winter has been dry and your upland meadow has deficient moisture, irrigation will do both.

RE-DIRECT EXAMINATION:

Water let out from the lateral onto sloping ground, where the irrigation length is comparatively short, might run over it without penetration. In order to irrigate it you have got to make penetration, which takes time. A few minutes isn't going to accomplish the thing at all. The necessity of holding the water on the slope long enough to make the penetration requires that it be held there, and the minimum amount get away. It requires that the water be held there in very small streams, or it will go off the slope, probably into the lower country, where it will over-irrigate part of the flatter area.

DEFENDANT RESTS.

W. M. WORTHINGTON, being duly sworn as a witness on behalf of plaintiff, testified as follows:

DIRECT EXAMINATION:

I reside at Oakley; I have been associated for a number of years in farming on these mountain meadows or valley ranches, particularly on the Horse Shoe ranch and the Jews Harp ranch, on Goose Creek. These ranches are about 20 to 25 miles north and a little east of the ranches of the defendant. They are right down the stream on the same creek. I am familiar with the defendants' ranches; have been on them. I can't see much difference in the character of the soil on the country on the ranches I have worked on as compared with the defendants' ranches; just the same crops grow on both. My father and brother have owned ranches since I was a small boy, and I have been on them off and on ever since for 20 or 25 years. I have irrigated myself on the Horse-shoe and Jews Harp ranches practically every season up to the last couple or three years. The soil there is from 1 to 2 or more feet sandy loam, with gravel underneath. I haven't made a test of that but I know from the looks of the creek. It is situated in the valley between hills along the creek. Native grasses, timothy and red top have been grown there. The fields are generally flooded in the spring from high water, naturally. The water is thrown out by the floods and beaver dams and things that might be in the creek, and then we generally try to irrigate it once or twice after that. We would irrigate about the 1st of July, the last time. The time when the

floods ordinarily go off so as to leave the land dry varies with years. I would say that a fair average would be along about the middle of April, or the first of May. This year we only irrigated once, and we didn't have the flood water either. Sometimes we irrigate twice. I believe we could get a little better results with two irrigations, if you can get them at the right time. I think a ton or a ton and a quarter per acre would be a good crop of native grass. I think that is a fair average in the Goose Creek country. I don't think it is necessary to irrigate every four or five days. I have never tried it, but I don't see but what we raise about as much hay as the rest and we don't do it. I don't know of any reason why more water should be used on the Grande and Wine Cup ranches. We generally start in between the 25th of July and the 1st of August to cut the crop. The Jews Harp ranch is about two miles north of the Utah line, in Idaho, on Goose Creek.

CROSS EXAMINATION:

There is a decreed water right for that land. I think we claim to have enough water to irrigate it as fully as it need be. We used to have a little trouble several years ago. There are about 200 acres in the Jews Harp ranch. In the Horseshoe ranch I believe there is 989 acres. The width of the meadow area is from a few hundred feet to a quarter of a mile. I don't know what the average depth of the stream would be, but I would say that the surface of the land is about four or five feet above the bed of the stream. In the ordinary run of water the surface of the

stream, I would say, would be about four feet below the surrounding land. There are beaver dams in the natural streams through this land. In places it holds the water back. The land receives sub-irrigation as a result of these obstructions. It subs across a forty-acre piece. I don't think the lower part of the meadow land received sub-irrigation as a result of those obstructions in the stream. It doesn't become necessary every year to take out the obstructions in the stream to harvest the crop. In the lower part we don't harvest it on the Jews Harp. There is a forty-acre strip in that. We don't harvest it because there is too much water. It results from the beaver dams in the creek. We cut about 60 acres for hay I think on the Jews Harp. I don't think that part receives sub-irrigation; there might be a little. I know one place on the lower field, about fifty feet from the creek, when the water comes in the spring it bores the roots out, cuts the ground out around the willows, and in July the water is down about four or four and a half or five feet; that is the only place that I know anything about the ground water. I never did any boring for the purpose of ascertaining how high the ground water was at different seasons of the year. On the Horseshoe ranch I think they mow about 400 acres, as near as I could guess, at the present time. It has been about three or four years since I had anything to do with the irrigation of that land. There is no natural overflow in that field. All of the water used for irrigation is taken out through the ditches. There might be a very little sub-irrigation on the

bottom there. The elevation of the ground water in that field I imagine would be about the same as the Jews Harp; I do not know, but that is my judgment. I observed that when we had our floods and they continued for a long time and deposited a wash-out on the meadows, and the water stood there, we didn't have near as good a crop as we did when it flooded over and would go off and give it a chance to grow. I haven't noticed a whole lot of timothy and red-top on the Rancho Grande the last two or three years. On the upper field I believe it is a good meadow, up to the last two years. I don't believe it is as good as it was a couple of years ago. I mean below the house. The Wine Cup field has been used as pasture, and they haven't produced hay there like they have in the upper field. There is a very good thrifty growth on the Rancho Grande, but the bottom of the Wine Cup I have never paid so much attention to. It was just used as pasture, and was a good pasture all right.

RE-DIRECT EXAMINATION:

As to the hay crop on the Rancho Grande I never made any measurements but I believe they used to cut more hay than they do now. I think the meadow was better formerly. I have heard some of the irrigators I believe say that they used to use quite a lot of water, but I don't know whether they used any more than they do now.

WALTER T HOLT, being duly sworn as a witness on behalf of plaintiffs, testified as follows:

DIRECT EXAMINATION:

I have resided at Oakley, Idaho, for about nine years. I owned one of these mountain ranches in the

northwest corner of Box Elder County, Utah, about 25 miles east from the Wine Cup and Grande ranches. I believe it is a little higher. The general character of the soil was about the same as those described as mountain valley ranches, sandy loam of a foot and upwards and underlaid with gravel. On my ranch I had wild meadow, a mixture of hays and grasses. I had wire grass, blue grass, and what I called wild rep-top. I cultivated this ranch and raised hay there for about 20 years, between 1884 and 1906, along in there. I got off a ton or a little better to the acre. I irrigated twice each season. I would commence sometimes the latter part of May and sometimes along about the 8th or 10th of June. The last time I would irrigate would be along about the last of June or up until the 10th of July. I would cut my crop along about the last of July or the 1st of August. I did not find it necessary to irrigate every four or five days. I had 160 acres in the wild meadow. I would use a head of water along about 150 inches to irrigate with. It would require me with that head about 14 days to irrigate the 160 acres. My observation is that a ton or a little more is a fair crop per acre for native grass.

CROSS EXAMINATION:

My property was located on one fork of the head of Raft River. In the spring of the year there was some natural overflow of the land. The low meadow land would be overflowed. I guess there would be 30 or 40 acres overflowed on some of it, and some of it wouldn't be; it all depends on the size of the flow in

the spring of the year. The flooding took place ordinarily along in March and sometimes in April. Not very much of the land was sub-irrigated because I had quite deep channels running through it, and it drains itself pretty well. Usually this meadow land is quite moist up to July, with the spring rains and the overflow of the land. There were some high places. On the high places the grass didn't die particularly; I would start in to irrigate and start the water on the high places and the low places would take care of themselves. The irrigation that I gave it those two seasons of the year would keep the land moist until the hay was harvested. Some seasons it would be a little different, of course. I would have to start in some seasons probably a little earlier than others, but on an average that is about the time of season I would start in to irrigate this land. Two irrigations would keep the land sufficiently moist to preserve the hay and cause it to continuously grow until the harvest time. The land would be pretty good and moist most of the time; not up to the surface, but it would make a good crop. I can generally tell by the hay whether it is drying out or whether it is thriving. It should have continuous moisture to cause the hay to grow. Hay of that character will cease growing the moment all of the moisture gets out of the soil.

JOHN C. BOREN, being duly sworn as a witness on behalf of plaintiffs, testified as follows:

DIRECT EXAMINATION:

I reside at Oakley, Idaho. I had a mountain valley

ranch at Oakley in what is now the Oakley reservoir, about 20, maybe 22, miles from the south line of the State of Idaho. It is down Goose Creek from the other ranches. I had 128 acres and irrigated about 70 or 75 acres. The soil was a foot or more of sandy loam, with gravel underneath; the same conditions about as along all those creeks. I have been on the Grande ranch. I irrigated down there one summer. On this ranch of mine I raised about a ton to the acre, on natural wild meadow. I irrigated from once to twice, depending upon the overflow of the creek. I cut the hay along the latter part of July or the 1st of August. To irrigate the 75 acres I took a head of water of 75 to 100 inches. I would leave that on the ground 14 or 15 days, maybe, at a time, running it over there. I irrigated on the Grande ranch in 1897. I went there that year about July 1st. I irrigated alfalfa. I did not irrigate the native grass; I did nothing only just while we were putting up the alfalfa, we had it on the upper field. They cut native grasses that there year. To my best recollection I think we took that water off somewhere about the 10th. We cut it along about the first of August and took the water off and let it dry out. I don't believe, to the best of my knowledge, it is a good thing to put water on every four or five days. I did not find it necessary to do that.

CROSS EXAMINATION:

My property was bottom land, the biggest part of it. The creek ran practically down through it. It extended only for a short distance on either side. It

received its water from Trapper Creek on one side and from Goose Creek on the other. Take it most any ordinary year most of the land overflowed more or less; it would overflow that low land. I never had a failure of crop there. Under my method of irrigation I kept the ground moist until harvesting. It seemed to hold the water pretty good. The ground was kept moist up to harvesting time.

RE-DIRECT EXAMINATION:

The overflow affects practically all of the ranches along Goose Creek in the same way. When I speak of overflow I mean the high water in the spring which brings it above the banks and floods all over the land; it goes clean across them. That is very often the case all up and down that creek ever since I have been there. I don't think there is any particular difference between my place and the Grande.

S. P. WORTHINGTON, being duly sworn as a witness on behalf of plaintiffs, testified as follows:

DIRECT EXAMINATION:

I reside at Oakley, Idaho. I am somewhat familiar with the irrigation of these mountain ranches, particularly with what is known as the Horseshoe ranch and the Jews Harp ranch, located near the boundary line between Nevada and Idaho. Native grass grows on these ranches. The frequency of irrigation upon these ranches depends largely upon the character of the year. When we have a very wet season and the creek overflows the grass early in the spring, and then recedes, why we have raised a splendid good crop of hay with one irrigation afterwards. In years

when that doesn't occur it requires two good irrigations to mature the crop of hay. I have been acquainted with the Grande ranch and the Wine Cup. I first visited them in 1880. I was there quite frequently up until 1900. I think I was there most likely every year. In some parts of the Rancho Grande field, to the best of my observations, while I never made particular investigation, it would be the same character of soil as at the other places. I believe in the upper part of the Grande field there is a portion of that soil that is perhaps a little more sandy than the soil down in the Horseshoe and Jews Harp ranches. That is on the east side where this experiment was made that has been testified to.

CROSS EXAMINATION:

I would say this from general observations, because I never made any particular investigations. I rather think that the form employed in irrigating the Jews Harp and Horseshoe ranches would be to keep the ground moist so that the hay would grow. It wouldn't be necessary to have it flooded all the time in order to do that. The nature of timothy and the nature of red-top also will stand some drouth without killing, but it will not grow the moment the soil dries out around the roots. It must be damp and have some moisture. That is true of any crop.

BOTH PARTIES REST.

PLAINTIFFS' EXHIBITS.
PLAINTIFFS' EXHIBIT NO. 1.
ARTICLES OF AGREEMENT.

Hailey, Idaho, Serial No. 0307.

BETWEEN

James Rudolph Garfield, Secretary of the Interior, for and on behalf of the United States of America, and

F. R. Gooding, Governor, for and on behalf of the State of Idaho.

These articles of agreement, made and entered into this 13th day of November, A. D. 1908, by and between James Rudolph Garfield, Secretary of the Interior, for and on behalf of the United States of America, party of the first part, and F. R. Gooding, Governor, for and on behalf of the State of Idaho, party of the second part,

WITNESSETH, That in consideration of the stipulations and agreements hereinafter made, and of the fact that said State has, under the provisions of section 4 of the act of Congress approved August 18, 1894, of the act of Congress approved June 11, 1896, of the act of Congress approved March 3, 1901, through James Stephenson, Jr., its proper officer, thereunto duly authorized, presented its proper application for certain lands situated within said State and alleged to be desert in character, and particularly described as follows, to-wit:

List No. 23.

Total acreage 43,693.56.

and has filed a map of said lands, and exhibited a

plan showing the mode by which it is proposed that said lands shall be irrigated and reclaimed, and the source of the water to be used for that purpose, the said party of the first part contracts and agrees, and, by and with the consent and approval of Theodore Roosevelt, President thereof, hereby binds the United States of America to donate, grant and patent to said State, or to its assigns, free from cost for survey or price, any particular tract or tracts of said lands, whenever an ample supply of water is actually furnished in a substantial ditch or canal, or by artesian wells or reservoirs, to reclaim the same, in accordance with the provisions of said acts of Congress, and with the regulations issued thereunder, and with the terms of this contract, at any time within ten years from the date of the approval of the said map of the lands.

It is further understood that said State shall not lease any of said lands or use or dispose of the same in any way whatever, except to secure their reclamation, cultivation and settlement; and that in selling and disposing of them for that purpose the said State may sell or dispose of not more than 160 acres to any one person, and then only to bona fide settlers who are citizens of the United States, or who have declared their intention to become such citizens; and it is distinctly understood and fully agreed that all persons acquiring title to said lands from said State prior to the issuance of patent, as hereinafter mentioned, will take the same subject to all the requirements of said acts of Congress, and to the terms of this contract, and shall show full compliance there-

with before they shall have any claim against the United States for a patent to said lands.

It is further understood and agreed that said State shall have full power, right and authority to enact such laws, and from time to time make and enter into such contracts and agreements, and to create and assume such obligations in relation to and concerning said lands as may be necessary to induce and cause such irrigation and reclamation thereof as is required by this contract and the said acts of Congress; but no such law, contract, or obligation shall in any way bind or obligate the United States to do or perform any act not clearly directed and set forth in this contract and said acts of Congress, and then only after the requirements of said acts, the regulations thereunder, and this contract have been fully complied with.

Neither the approval of said application, map, and plan, nor the segregation of said land by the Secretary of the Interior, nor anything in this contract, or in the said acts of Congress, shall be so construed as to give said State any interest whatever in any lands upon which, at the date of filing of the map and plan hereinbefore referred to, there may be an actual settlement by a bona fide settler, qualified under the public land laws to acquire title thereto.

It is further understood and agreed that as soon as an ample supply of water is actually furnished in a substantial ditch or canal, or by artesian wells or reservoirs, to reclaim a particular tract or tracts of said lands, the said State, or its assigns, may make

proof thereof under and according to such rules and regulations as may be prescribed therefor by the Secretary of the Interior, and as soon as such proof shall have been examined and found to be satisfactory patents shall issue to said State, or to its assigns, for the tracts included in said proof.

The said State shall, out of the money arising from its disposal of said lands, first reimburse itself for any and all costs and expenditures incurred by it in irrigating and reclaiming said lands, or in assisting its assigns in so doing, and any surplus then remaining after the payment of the cost of such reclamation shall be held as a trust fund to be applied to the reclamation of other desert lands within said State.

This contract is executed in duplicate, one copy of which shall be placed of record and remain on file with the Commissioner of the General Land Office, and the other shall be placed of record and remain on file with the proper officer of said State, and it shall be the duty of said State to cause a copy thereof, together with a copy of all rules and regulations issued thereunder or under said acts of Congress, to be spread upon the deed records of each of the counties in said State in which any of said lands shall be situated.

In testimony whereof, the said parties have hereunto set their hands, the day and year first herein written.

JAMES RUDOLPH GARFIELD,
Secretary of the Interior.
STATE OF IDAHO,

(Seal)

By F. R. Gooding.

APPROVAL.

*To All to Whom These Presents Shall Come,
Greeting:*

Know ye that I, Theodore Roosevelt, President of the United States of America, do hereby approve and ratify the attached contract and agreement, made and entered into on the 13th day of November, 1908, by and between James Rudolph Garfield, Secretary of the Interior, for and on behalf of the United States, and F. R. Gooding, Governor, for and on behalf of the State of Idaho, under section 4 of the act of Congress approved August 18, 1894, the act approved June 11, 1896, and the act approved March 3, 1901.

THEODORE ROOSEVELT.

“F”—C. C. K.

GENERAL LAND OFFICE.

Railroad Grants and Right-of-way Division.

November 9, 1908.

It is hereby certified that this contract has been examined and compared with the duplicate, and found to be identical therewith; that the tracts therein described are duly indicated on the map filed with said contract, and are shown by the records of this office to be vacant and unappropriated.

It is further certified that the records of this office have been examined; the lands were not returned as mineral, are not in conflict with any mining claim, location, or entry, and are not within any withdrawn coal area.

S. S. MARR,

Chief of Division.

CHARLES H. KERAN,

Examiner.

State of Idaho,
County of Ada,—ss.

I, N. JENNESS, Register of the State Board of Land Commissioners of the State of Idaho, do hereby certify that the foregoing is a true and correct copy of Agreement with the Government covering Segregation List No. 23, except the land description, as same is on file in my office.

IN WITNESS WHEREOF, I have caused the seal of the State Board of Land Commissioners to be affixed this 23rd day of April, 1915.

N. JENNESS,
Register.

(Seal)

PLAINTIFFS' EXHIBIT NO. 2.

(Plaintiffs' Exhibit No. 2 is the form of agreement between the State of Idaho and the Twin Falls Oakley Land and Water Company, entered into on the 12th day of August, 1909, and is the same as Exhibit "A" attached to the Bill of Complaint and set forth in the printed transcript herein.)

PLAINTIFFS' EXHIBIT NO. 3.

No. 5027.

APPLICATION FOR PERMIT

To Appropriate the Public Waters of the State of Idaho.

1. Name of Applicant, Samuel H. Hays. Postoffice address, Boise. County, Ada. State, Idaho.
- II. The financial resources of the applicant are:
 - (d) Other resources: \$10,000.00.
2. The quantity of water claimed is 500 cubic feet per second.

3. Source of water supply: Goose Creek (or Oakley Creek), County of Cassia.
4. Location of point of diversion: In SE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 18, Tp. 14 S., R. 22 E. B. M. The $\frac{1}{4}$ corner between Secs. 17 and 18, T. 14 S. R. 22 E. B. M., bears N. 11° 10' E., 2190 feet.
5. To be used for:
 - I. Irrigation and domestic use:
 - (a) Amount of land to be irrigated: 84,561 acres, as per exhibit B.
 - (b) In the following legal subdivisions: See list, exhibit B, herewith.
6. Estimated cost of works: \$800,000.00.
7. Description of works for diversion:
 - I. Kind of works: Dam and ditch.
 - II. Dimensions of works:
 - (Reservoir)
 - (a) Height of dam 135 feet, length of dam at top 810 feet, length of dam at bottom 50 feet. Diversion dam height 6 feet, length 50 feet. Material used in construction: Stone, concrete, earth, wood.
 - (b) Capacity of reservoir: 63,000 acre feet.
 - (c) Size of headgate: Width 33 feet, height 10 feet.
 - (d) Conduit East Side canal, width at bottom 16 feet.
Conduit West Side canal, width at bottom 16 feet.
Width at water line, East Side, 36 feet.
Width at water line, West Side, 49 feet.

Depth of water 5½ feet. Diameter of pipe, inches.

Average grade per mile is 1.58 feet.

Length of conduit is: East Side 12, West Side 10.4, 22.4 miles, and it crosses the following quarter sections: See list Exhibit "A" to land described in 5-I-(b) above which is the point of intended use.

8. Time required for the completion of the construction of such work is five years.
9. Time required for the complete application of the water to the proposed use is four additional years.

BE IE KNOWN that the undersigned hereby makes application for a permit to appropriate the public waters of the State of Idaho as herein set forth.

SAMUEL H. HAYS,

Applicant.

Remarks: The reservoir dam is locate in Sec. 12, T. 15 S. R. 21 E From this point the stream is used as a conduit until the point of diversion specified in par. 4 is reached.

It is particularly intended to appropriate hereby the flow of the stream outside of the irrigation season, between November 1st and April 1st, and also flood waters as well as the natural flow of the stream.

APPROVAL OF STATE ENGINEER.

The number of this permit is 3751.

Date of first receipt of application, 4:50 p. m., March 27, 1908.

Returned to applicant for correction April 26, 1908.

Corrected application received June 15, 1908.

Recorded in Book 10, Page 3751. Approved June 17, 1908.

This is to certify that I have examined the within application for a permit to appropriate the public waters of the State of Idaho and hereby grant the same, subject to the following limitations and conditions:

Good and sufficient bond to be filed in the sum of \$1,000, on or before August 16, 1908.

One-fifth of the work above specified to be completed on or before December 17, 1910.

The whole of said work to be completed on or before June 17, 1913.

The time for proof of beneficial use of water appropriated in accordance herewith to extend to June 17, 1917.

Witness my hand this seventeenth day of June, 1908.

JAS. STEPHENSON, JR.,
State Engineer.

Deed, dated 14th day of July, 1909, from Samuel H. Hays, of Ada County, State of Idaho, to Twin Falls Oakley Land and Water Company, which grants, bargains, sells, assigns and transfers unto said company, "All of the rights acquired by the said Samuel H. Hays under and by virtue of the Proposal and Request heretofore made by him to the State Board of Land Commissioners of the State of Idaho, on the 15th day of June, 1908, and the amended proposal and Request made by him to said Board on the 21st day of June, 1909, said Proposals being for the construction of certain irrigation works constituting

what is known as the Oakley Project, in Cassia County, State of Idaho, and said Requests being for the segregation of approximately fifty thousand (50,000) acres of land in said county, being List No. 23, filed in the United States Land Office, at Hailey, Idaho; also all of the following described appropriations of water from streams in Cassia County, State of Idaho, made for the use and benefit of the said Oakley Project, and said appropriations of water being evidenced by the following permits issued by the State Engineer of the State of Idaho, to-wit:

Permit No. 3751 for 500 second feet of the waters of Goose Creek; Permit No. 4734 for 300 second feet of the waters of Cottonwood Creek; Permit No. 4732 for 300 second feet of the waters of Little Cottonwood Creek; Permit No. 4735 for 300 second feet of the waters of Birch Creek; Permit No. 4733 for 200 second feet of the waters of Basin Creek; also any and all other permits taken out by said party of the first part for use in connection with the said Oakley Project."

Certificate and acknowledgment in due form as required by the laws of Idaho attached.

Endorsed: Received and filed for record in the office of the State Engineer at Boise, Idaho, at 9:00 A. M. May 21, 1913.

F. P. KING, State Engineer.

PERMIT NO. 3751.

CERTIFICATE OF COMPLETION OF WORKS.

To All Whom It May Concern:

This is to certify that the Twin Falls Oakley Land

& Water Company, of Milner, County of Twin Falls, and State of Idaho, the holder of Permit No. 3751, issued upon Application No. 5027, bearing date of priority of March 27, 1908, authorizing the diversion of 500 second feet of the waters of Goose Creek (or Oakley Creek), County of Cassia, State of Idaho, for irrigation and domestic purposes, has fully complied with the provisions of the laws of the State of Idaho relating to the proof of completion of works of diversion set out and described in said permit; that said works are adequate for diverting and conveying to the place of intended use 500 second feet of the waters of Goose Creek; that the point of diversion of said waters is at a point in the SE $\frac{1}{4}$ of SE $\frac{1}{4}$ of Sec. 18, T. 14 S., R. 22 E. B. M., and that the lands proposed to be irrigated by the use of said water are described as follows, to-wit:

* * * * * * *

Witness my hand this 19th day of July, A. D. 1913.

F. P. KING,

State Engineer of the State of Idaho.

Bond: From Samuel H. Hays, as principal, and D. C. MacWatters and Fentress Hill, of Milner, Idaho, as sureties, to the State of Idaho, in the sum of \$1,000.00, for the faithful completion of works of diversion as specified in Application No. 5027 and Permit No. 3751, in the manner and form prescribed therein and within the time therein allowed.

Affidavit of justification of sureties in due form attached.

Endorsed: Received and filed for record in the office of the State Engineer at Boise, Idaho, at 4:00 p. m. August 10, 1908.

JAS. STEPHENSON, JR.,

Approved:

State Engineer.

Date, Aug. 14, 1908.

Jas. Stephenson, Jr.,

State Engineer.

Certificate in due form by State Engineer of the State of Idaho, dated the 24th day of April, 1915, that the foregoing documents, constituting Plaintiffs' Exhibit No. 3, are full, true and correct copies as the same appear on file in the State Engineer's office.

PLAINTIFFS' EXHIBIT NO. 4.

No. 6317.

APPLICATION FOR PERMIT

To Appropriate the Public Waters of the State of Idaho.

1. Name of applicant: S. H. Hays.

Postoffice address: Boise. County: Ada. State: Idaho.

II. The financial resources of the applicant are:

(d) Other resources, \$10,000.

2. The quantity of water claimed is 1000 cubic feet per second.

3. Source of water supply: Goose Creek, County of Cassia.

4. Location of point of diversion: SW $\frac{1}{4}$ Sec. 17, Tp. 14 S. R. 22 E.

5. To be used for:

I. Irrigation and domestic use:

- (a) Amount of land to be irrigated: 60,000 acres.
- (b) In the following legal subdivisions: See List A, herewith, and map.
- 6. Estimated cost of works: \$750,000.
- 7. Description of works for diversion:
 - I. Kind of works: Reservoir, dam, ditch, flumes.
 - II. Dimensions of works:
 - (a) Height of dam 143 feet, length of dam at top 1100 feet, length of dam at bottom 250 feet. Material used in construction: Earth, stone, concrete, steel.
 - (b) Capacity of reservoir: 70,000 acre feet.
 - (c) Size of headgate: Width 10 feet, height 10 feet.
 - (d) Conduit ditch: Width at bottom 40 feet, width at water line 52 feet, depth of water 6 feet. Average grade per mile is 2 feet. Length of main conduit is $\frac{1}{2}$ mile, and it crosses the following quarter sections: See List B herewith and map, to land described in 5-I-(b) above which is the point of intended use.
- 8. Time required for the completion of the construction of such work is 5 years.
- 9. Time required for the complete application of the water to the proposed use is 4 additional years.

BE IT KNOWN That the undersigned hereby makes application for a permit to appropriate the public waters of the State of Idaho as herein set forth.

S. H. HAYS,
Applicant.

REMARKS: These waters, together with the waters appropriated in Applications numbered 6318, 6319, 6320 and 6321, are to be collected in a reservoir above a dam to be built in Sec. 19, Tp. 14 South, Range 22 East, B. M., thence to be distributed through distribution system shown on map herewith.

APPROVAL OF STATE ENGINEER.

The number of this permit is 4731.

Date of first receipt of application: 9:00 a. m.,
March 10, 1909.

Returned to applicant for correction: April 9, 1909.

Corrected application received: June 7, 1909.

Recorded in Book 13, Page 4731. Approved June 7,
1909.

This is to certify that I have examined the within application for a permit to appropriate the public waters of the State of Idaho and hereby grant the same, subject to the following limitations and conditions:

Good and sufficient bond to be filed in the sum of \$2,000 on or before August 6, 1909.

One-fifth of the work above specified to be completed on or before December 7, 1911.

The whole of said work to be completed on or before June 7, 1914.

The time for proof of beneficial use of water appropriated in accordance herewith, to extend to June 7, 1918.

Witness my hand this 7th day of June, 1909.

JAS. STEPHENSON, JR.,
State Engineer.

Deed, dated 9th day of May, 1914, from S. H. Hays to Twin Falls Oakley Land and Water Company, which grants, bargains, sells, assigns and transfers to said company "That certain water permit No. 4731 for 1,000 second feet of the waters of Goose Creek, Cassia County, Idaho, as the same appears of record in the State Engineer's Office, at Boise, Idaho, in Book 13, at page 4731."

Certificate of acknowledgment in due form as required by the laws of Idaho attached.

Endorsed: Received and filed for record in the office of the State Engineer at Boise, Idaho, at 4:45 p. m., June 1, 1914.

F. P. KING,
State Engineer.

Permit No. 4731.

CERTIFICATE OF COMPLETION OF WORKS.

To All Whom It May Concern:

This is to certify that the Twin Falls Oakley Land & Water Company, of Wilmington, County of, and State of Delaware, the holder of Permit No. 4731, issued upon Application No. 6317, bearing date of priority of March 10, 1909 authorizing the diversion of one thousand (1000) second feet of the waters of Goose Creek, County of Cassia, State of Idaho, for irrigation and domestic purposes, has fully complied with the provisions of the State of Idaho relating to the proof of completion of the works of diversion set out and described in said Permit; that said works are adequate for diverting and conveying to the place of intended use six hundred (600) second feet of the waters of Goose Creek; that the points of diversion of

said waters are as follows: From reservoir in the NE $\frac{1}{4}$ of Sec. 19, T. 14 S. R. 22 E. B. M., Oakley reservoir subdivisions; No. 1 in NE $\frac{1}{4}$ of NE $\frac{1}{4}$, Sec. 19; No. 2 in SW $\frac{1}{4}$ of SW $\frac{1}{4}$, Sec. 17; No. 3 in NW $\frac{1}{4}$ of SW $\frac{1}{4}$, Sec. 17; all in T. 14 S., R. 22 E. B. M.; that the waters appropriated under said permit are used in conjunction with waters appropriated under Permits Nos. 4732, 4733, 4734, 4735 and 3751; that the lands proposed to be irrigated by the use of said waters are described as follows, to-wit:

* * * * *

Witness my hand this 18th day of March, A. D.
1915.

J. H. SMITH,

State Engineer of the State of Idaho.

BOND: From S. H. Hays, as principal, and The Title Guaranty & Surety Company, a corporation of Pennsylvania, surety, to the State of Idaho, for the sum of \$2,000.00; to secure the completion of the irrigation system specified in application numbered 6317, and permit numbered 4731. Said bond is in the form and is executed in the manner required by the laws of the State of Idaho.

Endorsed: Approved, Date Aug. 6, 1909.

JAS. STEPHENSON, Jr.

State Engineer.

Received and filed for record in the office of the State Engineer at Boise, Idaho, at 11 a. m. August 6, 1909.

JAS. STEPHENSON, Jr.

State Engineer.

Certificate in due form by State Engineer of the State of Idaho, dated the 24th day of April, 1915, that the foregoing documents, constituting Plaintiffs' Exhibit No. 4, are full, true and correct copies as the same appear on file in the State Engineer's office.

PLAINTIFFS' EXHIBIT No. 5-A.

(Plaintiffs' Exhibit No. 5-A is the form of agreement entered into between the Twin Falls Oakley Land and Water Company and purchasers of water rights for Carey Act lands included in the Oakley project, and is the same form of agreement as is attached to the Bill of Complaint, marked Exhibit "B," and appears herein in the printed transcript of said Bill.)

PLAINTIFFS' EXHIBIT No. 5-B.

(Plaintiff's Exhibit No. 5-B is the same as Plaintiffs' Exhibit No. 5-A, with the exception of modifications made to apply to persons purchasing water rights for lands other than Carey Act lands.)

PLAINTIFFS' EXHIBIT 5-C.

Oakley Old Water Rights. *Contract No.*

TWIN FALLS OAKLEY LAND AND WATER
COMPANY.

Agreement.

This Agreement, Made in duplicate this day of, 19.., between the Twin Falls Oakley Land and Water Company (for convenience hereinafter called "the Company") a corporation organized

and existing under the laws of the State of Delaware, party of the first part, and. (for convenience hereinafter called "the Purchaser"), of, State of., party of the second part, witnesseth:

That the Company has heretofore entered into a contract with the State of Idaho, acting by its State Board of Land Commissioners, whereby the Company bound itself to construct a system of canals and irrigation works for the reclamation and irrigation of certain lands therein described and referred to, which contract is of record in the office of the Register of the State Board of Land Commissioners at Boise City, Idaho, and is dated August 12th, 1909, and is hereinafter called the "State Contract."

That the Company has heretofore entered upon the work of construction of said irrigation system for the purpose of diverting the waters of various streams under the appropriations set forth in the State Contract.

That the State Board of Land Commissioners, pursuant to law and its rules and regulations, has notified the Company that it may proceed to sell or contract rights to the use of water flowing and to flow through the canals and rights to and in said system of irrigation works, pursuant to law and to the terms of said contract with the State.

That the Purchaser has made application to the Company to be permitted to purchase, so far as possible on the same terms provided for Carey Act entrymen, the rights and privileges by said contract

provided, to the extent hereinafter named, which said application has been accepted by the Company.

That in consideration of the covenants and agreements hereinafter contained, it is agreed in pursuance of the State Contract that the Purchaser shall become entitled to shares of the capital stock of the Oakley Canal Company, the certificate thereof to be in the form as follows, to-wit:

OAKLEY CANAL COMPANY.

. Shares. , 19 . . .

This is to certify that is the owner of shares of the capital stock of the Oakley Canal Company.

This certificate entitles the owner thereof to a water right of one and one-half acre feet of water for each acre of the following described land:

E. B. M., containing acres in Cassia County, State of Idaho, in accordance with the terms of the contract between the State of Idaho and the Twin Falls Oakley Land and Water Company, dated August 12, 1909, and this certificate also entitles the owner to a proportionate interest in the dam, canal, irrigation works and water rights, together with all the rights and franchises attached thereto, based upon the number of shares finally sold in accordance with the said contract between the said Company and the State of Idaho.

OAKLEY CANAL COMPANY,

By President.

Attest: Secretary.

Said certificate to be delivered as provided for in said State Contract and under the conditions therein stated, and as provided in an escrow agreement between the parties hereto, dated, 1909.

The water which the Purchaser shall have the right to conduct and receive through the said canal system shall be used upon and the water shall become dedicated and be appurtenant to the land above described and none other.

And the parties hereto expressly agree as follows, to-wit:

1. This agreement is made in accordance with the provisions of said contract between the State of Idaho and the Company, which together with the laws of the State of Idaho under which this agreement is made, shall be regarded as defining the rights of the respective parties, and shall regulate the provisions of the shares of stock to be issued to the Purchaser by the Oakley Canal Company.

2. The Company agrees that so long as it retains control of the Oakley Canal Company, to-wit, so long as it shall continue to vote a majority of the stock of said Company, as provided by the State Contract, that it will cause said Company to keep and maintain the said irrigation system in good order and condition and to cause any necessary repairs thereto to be made as soon as practicable and expedient.

Said Oakley Canal Company is to have power to levy all necessary tolls, charges and assessments upon all users of water in proportion to their respective holdings of stock, whether water is used or not, and

the Company hereby agrees that the annual charge for maintenance shall not, during the period described in the State Contract, exceed the sum of 35 cents for each and every acre, to be charged against the entire acreage irrespective of the irrigation thereof. The Purchaser agrees to pay said charges at the office of the Oakley Canal Company on the first day of April of each year, without notice.

3. The consideration for the water rights hereby agreed to be conveyed is the transfer and conveyance to the party of the first part of all water rights belonging to or owned by the Purchaser in streams, the waters of which are to be used for the irrigation of lands mentioned in the State Contract.

The rights of the Purchaser in and to the irrigation system and water rights used in connection therewith shall be the same as those of other stockholders in the Oakley Canal Company.

4. The Purchaser hereby covenants and agrees that upon default in the payment of any of the payments above specified, the Company may proceed either in law or in equity to collect the same, and to enforce any lien which it may have upon the water rights hereby contracted, or upon the lands to which said water rights are dedicated, or may at its option proceed to enforce any remedy given by the laws of Idaho to the Company against the Purchaser.

5. It is agreed that no water shall be delivered to the Purchaser from said irrigation system while any sum is due and unpaid from the Purchaser to the Company or while any toll or assessment is due

and unpaid from the Purchaser to the Oakley Canal Company. Water shall be delivered through said irrigation system only during the irrigation season, between April 1st and November 1st of each year. A domestic supply when necessary outside of the irrigation season shall be delivered under such rules and regulations and under such terms and conditions as shall be determined by said Oakley Canal Company.

This contract is made pursuant to and subject to the contract between the Company and the State of Idaho and the existing laws of said State. This agreement shall bind the heirs, successors and assigns of the respective parties. No charge shall be made by the purchaser for necessary right of way for canals.

7. All notices given to second party by the first party hereto or its assigns may be sent to second party by mail to the address hereinbefore given.

In Witness Whereof, The parties have hereunto subscribed their names, and the Company has caused its seal to be affixed the day and year above written in duplicate.

TWIN FALLS OAKLEY LAND AND WATER
COMPANY,

In the Presence of:

By.....
Vice-President.

.....

.....
Assistant Secretary.

.....

.....
Purchaser.

.....

By.....
Attorney in Fact.

Witnesses.

State of Idaho,
County of Twin Falls.—ss.

On this....day of....., in the year 191...,
before me,, a Notary Public in and for
said County and State, personally appeared.....
known to me to be the person whose name is sub-
scribed to the above instrument and acknowledged
to me that he executed the same.

Attest my hand and official seal the day and year
in this certificate first above written.

(Seal.)Notary Public.
My commission expires.....

State of Idaho,
County of Twin Falls.—ss.

....., 191..., before me,, a Notary
Public, in and for said County and State, personally
appeared.....known to me to be the person
whose name is subscribed to the above instrument
as the attorney in fact of.....and acknowl-
edged to me that he subscribed the name of.....
thereto as principal and his own name as attorney
in fact.

Attest my hand and official seal the day and year
in this certificate first above written.

(Seal.)Notary Public.
My commission expires.....

I hereby certify that the above is a true copy of
the original contract in the above matter.

Attest:.....
Assistant Secretary Twin Falls Oakley
Land and Water Company.

PLAINTIFFS' EXHIBIT No. 8.

Water Right Agreement.

Know All Men By These Presents: That I, the undersigned owner of the following described land, in County of Cassia, Idaho, viz:....., having and owning a water right in.....creek or its tributaries covering said described land, which rights was secured under and by virtue of a certain decree of the district court of the Fourth Judicial District of Idaho in and for Cassia County, entered and recorded on the 9th day of April, 1892, in the suit of.....et al., plaintiffs vs.et al., defendants, and claiming under the award made under said decree to..... with priority dating from....., and to..... with priority dating from....., and to..... with priority dating from....., and to..... with priority dating from....., and to..... with priority dating from....., and to..... with priority dating from....., and to..... with priority dating from....., and to..... with priority dating from....., and to..... with priority dating from....., and to..... with priority dating from....., and to..... 19.., for the amount of.....inches of water, for and in consideration of the benefits that would accrue to me from the building of a reservoir or reservoirs, to impound and conserve the waters of Goose Creek, Birch Creek, and such other streams and

their tributaries as may be found practicable and desirable and the construction of a modern canal system, which will make practicable the systematic and economical distribution and use of the waters of the above mentioned streams; thus largely increasing the duty of the water, and making possible the fullest development of the resources of the community in which I am interested, I hereby agree to waive, surrender and transfer, my water right above mentioned being all of my water rights from said streams, and agree to take and accept, in lieu thereof, from the company or individual constructing the above said reservoir or reservoirs and canal system, a paid up water right contract of acres of land situate in Cassia County, Idaho, described as follows, to-wit: Said above mentioned water right contract to convey and transfer to me, under the form of contract approved by the State Board of Land Commissioners, the same amount of water per acre under the same terms and conditions as water is sold to settlers on Carey Act lands, under the contract to be hereafter entered into between the builders of the above mentioned irrigation system and the State of Idaho. The number of shares transferred in lieu of the right surrendered are

A domestic supply, when necessary, outside of the irrigation season, shall be delivered under such rules and regulations and under such terms and conditions as shall be determined by the operating company.

It is further agreed by Reservoir Company im-

pounding the waters of Goose Creek and tributaries, to sell water at the rate of \$40.00 per acre, for all patented lands now held by settlers, that will not be covered or irrigated through the above exchange.

The transfer of water rights shall take place whenever the paid up water contract is issued to water owners by Reservoir Company.

Dated this....day of....., 1908.

Signed, Sealed and Delivered in the

presence of: (Seal.)

..... (Seal.)

State of Idaho,

County of.....—ss.

On this....day of....., in the year....., before me, B. P. Howells, a notary public in and for said county, personally appeared.....and....., personally known to me to be the same persons whose names are subscribed to the within instrument, and each duly acknowledged to me that they executed the same.

In Witness Whereof, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

.....

PLAINTIFFS' EXHIBIT No. 9.

Water Right Deed.

This Indenture, made this....day of....., in the year of our Lord one thousand nine hundred and nine, between.....of....., County

of Cassia, and State of Idaho, the party of the first part, and the Twin Falls Oakley Land and Water Company, a Delaware corporation, the party of the second part,

Witnesseth, That the said part. . of the first part, for and in consideration of the sum of One Dollar, lawful money of the United States of America, to in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged, do. . by these presents bargain, sell, remise and release forever, unto the said party of the second part, and to its successors and assigns forever, all the following described real property, situated in Cassia County, State of Idaho, to-wit:

All that certain water right belonging to the said part. . of the first part, and consisting of a right to the use of inches of the waters of Goose Creek, in Cassia County, State of Idaho, said waters of Goose Creek, in Cassia County, State of Idaho, said water right having been decreed to the said part. . of the first part, or to predecessor in interest under the decree of the District Court of the Fourth Judicial District of the State of Idaho, in and for Cassia County, in the suit of Mary H. Botzet vs. George Chapin, et al. Said judgment and decree was entered and filed in the said Court, on the 19th day of March, 1892. It being intended hereby to convey all of the rights of the said part. . of the first part, to the waters of said Goose Creek.

Together with all and singular the tenements, hereditaments and appurtenances thereunto belong-

ing or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof.

To Have and To Hold, All and singular the said property, together with the appurtenances unto the said party of the second part and to its successors and assigns forever.

In Witness Whereof, The said part..of the first part ha..hereunto set.....hand and seal., the day and year first above written.

..... (Seal.)

..... (Seal.)

Signed, sealed and delivered in the presence of:

.....

.....

State of Idaho,

County of Cassia.—ss.

On this....day of....., 1909, before me, B. P. Howells, a notary public in and for said County, personally appeared.....known to me to be the person whose name.....subscribed to the within instrument, and acknowledged to me that.....executed the same.

In Witness Whereof, I have hereunto set my hand and affixed my official seal, the day and year in this certificate first above written.

.....Notary Public.

(FORM FOR ENDORSEMENT:)

Water Right Deed.to Twin Falls Oakley Land and Water Co. Dated....., 19... State of Idaho, County of Cassia. I hereby certify

that this instrument was filed for record at request
of.....at....minutes past....o'clock, ..M.,
this....day of....., 19.., in my office, and duly
recorded in Book.....of Deeds at Page.....
.....Ex-Officio Recorder, by.....
Deputy. Fees, \$.....

PLAINTIFFS' EXHIBIT No. 10.

Territory of Idaho, Cassia County.

*District Court, Third Judicial District, in and for
said County.*

Martin Oklebery, H. M. Thatcher, et al.,

vs.

C. H. Karlson, et al.

This Cause having been regularly called and tried
by the referee, J. T. Morgan, Esq., and the findings
of fact and conclusions of law and the decisions
thereon in writing, having been duly rendered which
are now on file in this cause.

It is now therefore ordered, adjudged and decreed:

I.

That Laura L. Thatcher have and enjoy the free
and uninterrupted use of one hundred and sixty inch-
es of the waters of Goose Creek in Cassia County,
Idaho Territory, for the purpose of irrigation, from
and after the first day of April, A. D. 1875, con-
tinuously.

II.

That the said George Chapin have and enjoy the
free and uninterrupted use of two hundred inches of

the waters of Goose Creek, in said County and territory for the purpose of irrigation, from and after the first day of April, A. D. 1876, continuously. Subject however to the prior right of the party aforesaid.

III.

That the said George Chapin and Harriet Stout, heirs at law of Maria and Elizabeth Chapin, have and enjoy the free and uninterrupted use of one hundred and twenty inches of the waters of Goose Creek in said county and territory for the purpose of irrigation, from and after the first day of April, A. D. 1876, continuously. Subject however to the prior rights of the parties aforesaid.

IV.

That the said J. F. Tatro have and enjoy the free and uninterrupted use of one hundred and seventy inches of the waters of Goose Creek in Cassia County aforesaid, for the purpose of irrigation, from and after the first day of July, 1877, continuously. Subject nevertheless to the prior rights of the parties before mentioned.

V.

That the said W. C. Martindale have and enjoy the free and uninterrupted use of eighty (80) inches of the waters of Goose Creek in said County and territory aforesaid for the purpose of irrigation from and after the first day of May, 1879, continuously. Subject, however, to the prior rights of the parties before mentioned.

VI.

That the said George Craner, have and enjoy the free and uninterrupted use of forty inches of the waters of Goose Creek in the county and territory aforesaid, for the purpose of irrigation, from and after the first day of May, A. D. 1879, continuously. Subject, however, to the prior rights of the parties aforesaid.

VII.

That said R. A. Hunter have and enjoy the free and uninterrupted use of forty inches of the waters of Goose Creek, in said county and territory, for the purpose of irrigation, from and after the first day of May, A. D. 1879, continuously. Subject to the prior rights of the parties aforesaid.

VIII.

That the said Thomas McBride have and enjoy the free and uninterrupted use of the one hundred and sixty inches of the waters of Goose Creek in the county and territory aforesaid, for the purpose of irrigation, from and after the first day of May, 1879, continuously. Subject, however, to the prior rights of the parties aforesaid.

IX.

That the said C. C. Haynes have and enjoy the free and uninterrupted use of three hundred and twenty inches of the waters of Goose Creek, in said county and territory, for the purpose of irrigation, from and after the first day of February, A. D. 1880, continuously, subject, however, to the prior rights of the parties aforesaid.

X.

That Martin Okleberry, have and enjoy the free and uninterrupted use of one hundred and sixty inches of the waters of Goose Creek, in said county and territory aforesaid, for the purpose of irrigation from and after the first day of March, A. D. 1880, continuously. Subject, however, to the prior rights of the parties aforesaid.

XI.

That H. M. Thatcher have and enjoy the free and uninterrupted use of one hundred and sixty inches of the waters of Goose Creek, in said county and territory aforesaid, for the purpose of irrigation, from and after the 23rd day of March, A. D. 1880, continuously, subject, however, to the prior rights of the parties aforesaid.

XII.

That Andrew Eliason enjoy the free and uninterrupted use of one hundred and forty inches of the waters of Goose Creek in the county and territory aforesaid, for the purpose of irrigation, from and after the 27th day of April, A. D. 1880, continuously. Subject, however, to the prior rights of the parties aforesaid.

XIII.

That said George Whittle shall enjoy the free and uninterrupted use of eighty (80) inches of the water of Goose Creek. in said county and territory, for the purpose of irrigation, from and after the 27th day of April, A. D. 1880, continuously. Subject, however, to the prior rights of the parties aforesaid.

XIV.

That said C. H. Karlson have and enjoy the free and uninterrupted use of twenty inches of the waters of Goose Creek in said county and territory aforesaid for the purpose of irrigation from and after the 27th day of April, A. D. 1880 continuously. Subject, however, to the prior rights of the parties aforesaid.

XV.

That the said C. E. Harris shall have and enjoy the free and uninterrupted use of one hundred and sixty (160) inches of the waters of Goose Creek in said county and territory, for the purpose of irrigation, from and after the first day of November, A. D. 1880, continuously. Subject, however, to the prior rights of the parties aforesaid.

XVI.

That the said owners of the Western Canal No. 1 have and enjoy the free and uninterrupted use of four hundred inches (400) of the waters of Goose Creek in said county and territory, for the purpose of irrigation, from and after the first day of March, 1881, continuously. Subject, however, to the prior rights of the parties aforesaid.

That the said owners of the Furguson and McBride Ditch No. 4, have and enjoy the free and uninterrupted use of three hundred and twenty (320) inches of the waters of Goose Creek in said county and territory from and after the first day of April, A. D. 1881, continuously, for the purpose of irrigation. Subject, however, to the prior rights of the parties aforesaid.

That the said owners of the said Tolman Ditch No. 7 and enjoy the free and uninterrupted use of two hundred inches of the water of Goose Creek, in said county and territory, for the purpose of irrigation from and after the first day of May, A. D. 1881, continuously. Subject, however, to the prior rights of the parties aforesaid.

That the said Thomas Dunn have and enjoy the free and uninterrupted use of one hundred and sixty inches of the waters of Goose Creek in said county and territory, for the purpose of irrigation, from and after the first day of May, A. D. 1881, continuously. Subject, however, to the prior rights of the parties aforesaid.

That the said John A. Carson, have and enjoy the free and uninterrupted use of one hundred and sixty (160) inches of the water of Goose Creek in said county and territory, for the purpose of irrigation from and after the 17th day of May, A. D. 1881, continuously. Subject, however, to the prior rights of the parties aforesaid.

That the said David Johns do have and enjoy the free and uninterrupted use of one hundred and sixty inches of the water of Goose Creek in said county and territory, for the purpose of irrigation from and after the 17th day of May, A. D. 1881, continuously. Subject, however to the prior rights of the parties aforesaid.

That the said owners of the Whitby and Tolman Ditch No. 6 do have and enjoy the free and uninterrupted use of six hundred and forty (640) inches

of the waters of Goose Creek in said county and territory for the purpose of irrigation, from and after the first day of August, A. D. 1881, continuously. Subject, however, to the prior rights of the parties aforesaid.

That the said owners of the McBride Ditch No. 8 do have and enjoy the free and uninterrupted use of one hundred and sixty inches of the waters of Goose Creek in said county and territory, for the purpose of irrigation, from and after the 12th day of August, A. D. 1881, continuously. Subject, however, to the prior rights of the parties aforesaid.

That the owners of the "Well" Ditch No. 9 have and enjoy the free and uninterrupted use of one hundred and sixty inches of waters of Goose Creek in said county and territory, for the purpose of irrigation from and after the 15th day of August, A. D. 1881, continuously. Subject however, to the prior rights of the parties aforesaid.

That the said owners of the "Green Horner" Ditch No. 10 have and enjoy the free and uninterrupted use of one hundred and sixty inches of the waters of Goose Creek in said county and territory, for the purpose of irrigation, from and after the first day of October, A. D. 1881, subject to the prior rights of the parties aforesaid.

That the said owners of the "Western Canal" No. 1 have and enjoy the free and uninterrupted use of six hundred inches of the water of Goose Creek in said county and territory, for the purpose of irrigation, from and after the first day of March, A. D.

1882, continuously. Subject, however, to the prior rights of the parties aforesaid.

That the said owners of the "Weighall and Keplinger" Ditch No. 5, have and enjoy the free and uninterrupted use of six hundred and forty inches of the waters of Goose Creek in said county and territory for the purpose of irrigation, from and after the 1st day of March, A. D. 1882, continuously. Subject, however, to the prior rights of the parties aforesaid.

That the said owners of the Emerson Canal No. 2 do have and enjoy the free and uninterrupted use of two thousand (2000) inches of the water of Goose Creek in said county and territory for the purpose of irrigation from and after the 1st day of May, A. D. 1882, continuously. However, to the prior rights of the parties aforesaid.

That the said Chas. E. Harris do have and enjoy the free and uninterrupted use of two hundred inches of the water of Goose Creek in said county and territory, for the purpose of irrigation, from and after the first day of April, A. D. 1884, to be used continuously from the first day of January till the 20th day of May of each year. Subject, however, to the prior rights of the parties aforesaid.

That the said J. E. Miller do have and enjoy the free and uninterrupted use of six hundred and twenty (620) inches of the water of Goose Creek in said county and territory, for the purpose of irrigation from and after the first day of April, A. D. 1885, to be continuously used from the first day of January

to the 20th day of May in each year. Subject, however, to the prior rights of the parties aforesaid.

It is further ordered, adjudged and decreed that the amount of water herein decreed to each person, ditch or canal, shall be measured as follows: The owner or owners of each ditch shall construct a box or flume of two inch plank sixteen and one $\frac{1}{2}$ feet long of sufficient width and height to carry the water herein awarded to such person, ditch in a substantial manner and place the same at the head of such ditch or canal upon permanent and substantial supports, the lower ends of said flumes to be three-eighths inch lower than the upper and the water to run through said box without any obstructions in any part thereof, the water in said box not to be at any time at a greater depth than nine (9) inches. And that no person, ditches or canals shall receive any of said water except through such flumes.

It is hereby further ordered, adjudged and decreed that plaintiffs herein shall pay one hundred and fifty dollars of the costs of this action. And the defendants herein shall pay two hundred and eleven and 25-100 dollars of said costs, and execution shall be issued therefor.

Done by the court this 10th day of September, 1886.

(Signed) J. B. HAYS,
Judge of the Third District Court of Idaho
Territory.

Filed September 14, 1886 and duly recorded. S.
H. Hays, Clerk, by J. E. Harroun, Deputy.

State of Idaho,
County of Cassia.—ss.

I, George A. Smith, Clerk of the District Court of the Fourth Judicial District of the State of Idaho, in and for Cassia County, do hereby certify that the foregoing sheets of typewritten matter is a full, correct and true copy of the decree in an action entitled Martin Oklebery, H. M. Thatcher, et al., vs. C. H. Karlson, et al., the original of which is now on file in my office.

In Witness Whereof, I have hereunto set my hand and affixed the seal of said Court, at Albion, Idaho, this 24th day of June, 1911.

GEO. A. SMITH,
(Seal.) Clerk of District Court.

*In the District Court of the Fourth Judicial District
of the State of Idaho, in and for Cassia County.*

Mary H. Botzet, *Plaintiff*,

vs.

George Chapin, et al., *Defendants*.

This cause having been heretofore tried by the court without a jury, and the court having made its findings of fact and conclusions of law.

It is now ordered, adjudged and decreed that the following parties are entitled to divert from Goose Creek the amount of water herein indicated, and the right of each party dates from the time hereinafter stated and opposite each name, to-wit:

Mary H. Gillespie, eighty (80) inches, May 31,
1878.

John R. Shaw, one hundred fifty (150) inches,
April 1st, 1888.

James Divine, twenty (20) inches, March 31,
1883.

Charles Walker, forty inches, August 31, 1883.

D. H. Cox, one hundred (100) inches, May 1,
1882.

J. W. Walker, forty inches (40), March 31,
1881.

S. R. Worthington, eighty (80) inches, March
1, 1877.

S. R. Worthington, seventy (70) inches, March
1, 1877.

S. R. Worthington, fifty (50) inches, March 1,
1882.

This said right shall only be used from the 1st day
of April to the 1st day of July in each year.

F. M. Cummins, seventy-five (75) inches, March
1, 1877.

H. H. Severe, one hundred fifteen (115) inches,
March 1, 1877.

E. A. Jordan, one hundred seventy (170) inches,
June 31, 1878.

This said right shall only be used from the 1st day
of April to the 1st day of July of each year.

Henry Adamson, one hundred (100) inches,
March 31, 1877.

J. E. Miller, one hundred and fifty (150) inches,
April 30, 1880.

This said right shall only be used from the 1st day
of April to the 1st day of July in each year.

Isabella Miller, one hundred fifty (150) inches,
April 1, 1880.

This said right shall only be used from the 1st day of April to the 1st day of July in each year.

George Whittle, eighty (80) inches, March 31,
1887.

It is further ordered, adjudged and decreed that the following parties are entitled to divert from Trapper Creek (a tributary of Goose Creek) the amount of water herein indicated and the right of each party dates from the time hereinafter stated and set opposite each name, to-wit:

John R. Shaw, eighty (80) inches, May 31, 1877.

John R. Shaw, forty (40) inches, May 31, 1883.

These rights of John R. Shaw from the said Trapper Creek, to-wit, said 80 inches and said 40 inches, shall be used only from the 1st day of April to the 1st day of July in each year.

John R. Shaw, twenty (20) inches, May 31,
1877.

David Walker, seventy (70) inches, April 30,
1878.

It is further ordered, adjudged and decreed that the following parties are entitled to divert from Pole Creek (a tributary of said Goose Creek) the amount of water herein indicated, and the right of each party dates from the time hereinafter stated and set opposite each name, to-wit:

John R. Shaw, one hundred (100) inches, April
1, 1887.

This said right of said Shaw from said Pole Creek

shall be used only from the 1st day of April to the 1st day of July in each year.

It is further ordered, adjudged and decreed that following parties are entitled to divert from Goose Creek the amount of water herein indicated, and the right of each party dates from the time hereinafter stated and set opposite each name, to-wit:

H. D. Haight, one hundred sixty (160) inches,
April 1, 1875.

George Chapin, three hundred twenty (320)
inches, April 1, 1876.

J. F. Tatro, one hundred seventy (170) inches,
July 1, 1877.

W. C. Martindale, eighty (80) inches, May 1st,
1879.

George Craner, forty (40) inches, May 1, 1879.

R. H. Hunter, forty (40) inches, May 1, 1879.

Thomas McBride, 160 inches, May 1, 1879.

H. D. Haight, one hundred sixty inches, Febru-
ary 1, 1880.

Herbert Adams, one hundred sixty inches, Feb-
ruary 1, 1880.

Martin Okleberry, one hundred sixty inches,
March 1, 1880.

H. D. Haight, one hundred sixty inches, March
23, 1880.

Andrew Elison, one hundred forty (140) inches,
April 27, 1880.

George Whittle, eighty (80) inches, April 27,
1880.

C. H. Karlson, twenty (20) inches, April 27,
1880.

The owners of the following canals and ditches, to-wit:

Western Canal No. 1, four hundred (400) inches, March 1, 1881.

Ferguson & McBride Ditch, three hundred twenty (320), April 1, 1881.

Tolman Ditch No. 7, two hundred inches (200), May 1, 1881.

Thomas Dunn, one hundred sixty inches (160), May 1, 1881.

John A. Carson, one hundred sixty (160) inches, May 17, 1881.

David Johns, one hundred sixty (160) inches, May 17, 1881.

John Copper, forty-five (45) inches, May 17, 1881.

John A. Carson, Jr., twenty (20) inches, May 31st, 1881.

Tolman and Whitby Ditch No. 6, 640 inches, August 1st, 1881.

McBride Ditch, one hundred sixty inches, August 12, 1881.

Wells Ditch No. 9, one hundred sixty inches, August 15, 1881.

Green and Homer Ditch, one hundred sixty inches, October 1, 1881.

Western Canal No. 1, six hundred inches, March 1, 1882.

Weighall & Keplinger Ditch No. 5, six hundred forty inches, March 1, 1882.

J. E. Miller as successor of Chas. E. Harris, two hundred inches, April 1st, 1884.

J. E. Miller, six hundred twenty inches, to be used only between the 1st day of January and the 20th day of May in each year.

J. E. Miller, as successor of C. E. Harris, one hundred sixty inches, November 1st, 1880.

Emerson Canal, two thousand (2000) inches, May 1st, 1882.

It is ordered, adjudged and decreed that the several quantities of water herein decreed shall be the quantities hereinbefore named, measured at the point of diversion under a four-inch pressure, and that the first appropriator in point of time is first in right and all appropriators of equal right, subject however to the limitations hereinbefore named.

It is further ordered, adjudged and decreed that in case of insufficiency of water to supply all parties, the entire volume is to be devoted to, and used by those appropriators who are first in point of time.

It is further ordered, adjudged and decreed that the amounts of water herein decreed to the several parties aforesaid shall be measured as follows: The owner or owners of each ditch shall construct a box or flume of two inch plank, sixteen and one-half feet long and of sufficient width and height to carry the amount of water herein awarded to such parties, in a substantial manner and place the same at the head of such ditch, upon permanent and substantial supports, the lower end of said flume to be three eighths of an inch lower than the upper end, the water to

run through said box not to be at any time at a greater depth than nine inches at the head gate in said box or flume, and that no person or persons shall receive or divert any of the waters of said Goose Creek except through said flumes or box, the amount in inches under a four inch pressure to which each party is entitled to be indicated by the number of square inches in the cross section of the water measured 8¼ feet below the gate in said flume.

It is further ordered, adjudged and decreed that any and all parties to this action and their successors and assigns and each of them are hereby perpetually enjoined from diverting or interfering with any of the waters of said Goose Creek except in the quantity and in the order and in the manner in which they and each of them are herein decreed to be entitled thereto.

It is further ordered, adjudged and decreed that the following costs and expenses, to-wit, cost of service of summons and sheriff's costs and the costs and fees of the clerk, the actual and necessary cost for all plats from the land office, shall be equally divided between the plaintiffs and defendants to whom water is decreed hereinbefore in this action, and execution may issue for said costs at the expiration of thirty days from date hereof, and all costs, including witness fees, shall be borne and paid by the party incurring or making the same.

C. O. STOCKSLAGER, District Judge.

March 19, 1892.

M. T. Brown, Clerk of Court.

Entered herein April 9, 1892.

State of Idaho,
County of Cassia,—ss.

I, George A. Smith, Clerk of the District Court of the Fourth Judicial District of Idaho, in and for Cassia County, do hereby certify that the foregoing sheets of typewritten matter is a full, true and correct copy of the decree in an action entitled Mary H. Botzet, plaintiff, vs. George Chapin, et al., defendants, the original of which is now on file in my office.

In Witness Whereof, I have hereunto set my hand and affixed the seal of this court, this 24th day of June, 1911.

(Seal.) GEO. A. SMITH,
Clerk of District Court.

PLAINTIFFS' EXHIBIT No. 11.

To the Clerk of the Court:

Plaintiffs' Exhibit No. 11 is in such form that a typewritten copy of it cannot be made, and it is suggested that the original exhibit be sent to the printer, who can, undoubtedly, make a printed copy of it.

DEFENDANTS' EXHIBIT No. 2.

Rancho Grande.

Lands irrigated in 1889 in three fields at main ranch, and the Wine Cup field, at junction with Little Goose Creek and Big Goose Creek.

<i>Upper Field—</i>		ACRES	ACRES
On east side of Big Goose Creek	87.1		
Under new ditch laid out at that time	10.2	97.3	
On west side of Big Goose	134.4	231.7	
		<hr/>	
		231.7	
<i>Middle and Lower Fields—</i>			
Under east slough	46.8		
Under Jake Ritson ditch	3.9		
Under main ditch	90.5	141.2	
West side		65.5	
Total in house (or middle) and lower fields		<hr/>	206.7
Total in upper field			231.7
		<hr/>	
Total at Rancho Grande			438.4
<i>Wine Cup Field—</i>			
On east side	166.3		
On west side	102.9		
		<hr/>	
Total	269.2		
Rancho Grande	438.4		
		<hr/>	
Total irrigated land	707.6		

The foregoing is all of the evidence introduced, except certain original exhibits that cannot be conveniently made a part of the printed transcript, and are to be transmitted separate from the transcript to the Appellate Court.

(Title of Court and Cause.)

IN EQUITY— No. 510.

Stipulation.

It is hereby stipulated and agreed by and between the plaintiffs and the defendants herein, by and through their respective solicitors, that the foregoing is a true and correct statement of the evidence introduced in said cause reduced to narrative form and that the same may be settled and allowed by the court or the judge thereof on this date.

Dated November 6th, 1916.

S. H. HAYS,
P. B. CARTER,

Solicitors for Plaintiffs.

ANDREW HOWAT,
HERBERT R. MACMILLAN,
FRANK K. NEBEKER,
EDWIN SNOW,

Solicitors for Defendants.

It appearing that the within and foregoing statement of evidence was lodged in due time with the Clerk of this Court and that notice of such lodgment and of the time of the proposed settlement thereof was given to the solicitors for plaintiffs, and it appearing that the said statement as amended is true, complete and properly prepared, and is so stipulated to be by the parties hereto, it being, moreover, stipulated that the same may be settled and allowed on this date;

It Is Therefore Ordered, that the same is hereby settled and allowed as a true, complete and correct

statement of the evidence reduced to narrative form and of the exhibits introduced in said cause.

Dated this 6th day of November, 1916.

FRANK S. DIETRICH,

District Judge.

Lodged Sept. 20, 1916. W. D. McReynolds, Clerk.

Filed Nov. 6, 1916. W. D. McReynolds, Clerk.

By Pearl E. Zanger, Deputy.

(Title of Court and Cause.)

DECISION.

Dec. 11, 1915.

DIETRICH, District Judge:

In the main the evidence is meager and somewhat unsatisfactory touching the amount of land to which water has been applied by the parties hereto or their predecessors in interest. The water claimed by the plaintiff was appropriated for and used in the raising of general agricultural crops, crops upon lands which generally have been put under cultivation. The water claimed by the defendant has for the most part been applied to lands in their natural condition, and chiefly for the purpose of producing pasturage or native hay; there has been practically no cultivation in the ordinary agricultural sense. Upon consideration I have reached conclusions as follows touching the amount of land upon which the parties are entitled to use water:

First—The Plaintiffs' Rights.

For 300 acres, dating from May 1, 1878,

For 100 acres, dating from May 1, 1879.

For 250 acres, dating from May 1, 1880.

For 850 acres, dating from May 1, 1882.

For 500 acres, dating from May 1, 1883.

For 3000 acres, dating from May 1, 1884.

For 1500 acres, dating from May 1, 1888.

These rights, aggregating 6500 acres, constitute what are referred to in the record as the older rights, which the plaintiff company purchased from the settlers when it entered upon the construction of its project.

The plaintiff also hold two water permits, one for 500 second feet, dating from March 27, 1908, and one for 600 second feet, from March 10, 1909. These permits, of course, are very greatly in excess of the amount of water flowing in the stream, and presumably they were sought and granted for the purpose of enabling plaintiff to divert and impound in its storage reservoir all of the surplus flood waters of the stream at all times of the year. There can be no question that the plaintiff's diverting and impounding works are more than sufficient to divert and conserve all of the water flowing in the stream, and that it has need for more water than the stream supplies properly to irrigate the lands of its stockholders must also be conceded. Inasmuch, therefore, as these permits, which it is found have ripened into vested rights, absorbed all the waters of the stream not theretofore appropriated, it is of interest to inquire only touching those claims of defendant which were initiated prior to the dates of the permits.

The Defendant's Rights.

I find that no water was ever used by the defendant or its predecessors in interest upon what is called the Winecup ranch, except for the purpose of producing forage or pasturage or wild meadow lands, and that the water was used and the defendant is entitled to rights for the following acreages from the following dates:

100 acres of pasture or meadow land from May 1, 1875.

125 acres of the same kind of lands from May 1, 1886.

100 acres of the same kind of lands from May 1, 1900.

Rancho Grande.

On the Rancho Grande I find that the defendant is entitled to rights upon the following acreages from the following dates:

250 acres of pasture and meadow land from May 1, 1883.

50 acres of hay land from May 1st, 1883.

50 acres of hay land from May 1st, 1889.

100 acres of pasture from May 1, 1900.

Spring Creek Ranch.

Upon the Spring Creek ranch I find that the defendant is entitled to rights for the following acreages, all dating from May 1, 1904:

10 acres of cultivated or alfalfa land.

35 acres of wild hay land.

75 acres of pasture land.

The Amount or Duty of Water.

At a recent hearing testimony was introduced touching the duty of water. Part of it relates to an experiment made by the witness Beason. The witness testifies that in ten days he used thirteen and a half acre feet on seven and a half acres, or in the neighborhood of one and eight-tenths acre feet per acre for a single irrigation, and then the small tract experimented upon was not fully irrigated. The expert witness Tanner testified that ordinarily one-fourth of this amount is sufficient thoroughly to irrigate a tract of land once. Of course, it is quite possible so to apply water to land, especially if the soil be of an unusually porous character, that almost any quantity can be used in a single irrigation, but the law will not permit parties to irrigate in an unreasonable way and thus waste water. The head should bear some relation to the character of the soil and it is unjustifiable waste to undertake to irrigate with dribbling streams. In this experiment it is thought the method of application was so irrational that the result is wholly without value.

There is testimony to the effect that water must be kept upon the defendant's land all the time in order to produce good crops. It is doubtless true that a tract of land may be so treated that in time the vegetation naturally growing thereon will require water practically all of the time. It may be that by continuously drenching soils during a series of years only those species of wild grasses will survive which need water continuously, or other species will in time con-

fine their roots to the surface of the soil, to avoid drowning. But it does not follow that with a readjustment the lands would not produce quite as good crops with much less water. One of the witnesses, for example, expresses the view that the timothy which has been mixed with the wild grasses here would not flourish unless watered every three or four days; but as a matter of general knowledge we know that timothy often grows luxuriantly where there is no irrigation, and where the only source of moisture is the rain which falls at infrequent and uncertain intervals. Moreover, if credence is to be given to the testimony of the four witnesses who testified for the plaintiff, it is made to appear that sometimes with but a single irrigation, and generally with only two irrigations, crops quite as good as those produced on the defendant's land have for years been produced along the same stream upon lands of a similar character and similarly located. The difficulty is that no effort has ever been made by the defendant to determine the economic use of water for the raising of hay. While it does appear that good crops may be produced by keeping the lands drenched, no experiment has ever been made for the purpose of determining the least amount of water required to produce such crops upon similar lands which have never been so drenched. The testimony of the witness Tanner exhibits much learning, and it is not without weight, but touching the concrete question of the economic use of water in producing wild hay his opinion involves much of speculation. His experience and ob-

ervation in that field have been very meager, and his views are not altogether in harmony with those to be found in certain respectable treatises upon the subject, nor, as has already been shown, are they in accord with the actual experience of the four witnesses who testified for the plaintiff.

Upon consideration of the entire record, I have concluded to allow the plaintiff at the rate of two and three-fourths acre feet per acre, and the defendant at the rate of three acre feet per acre for its hay and grain lands, and two acre feet for its grazing or pasture lands—the several amounts to be of the dates and for the number of acres hereinbefore stated. Counsel for the plaintiff are directed to prepare decree. The decree will prohibit the diversion by the defendant of water from the stream during the period from September 1st of each year to April 1st of the ensuing year. It will also provide that the maximum amount which may be diverted at any one time upon the Winecup ranch is six and a half second feet; upon the Rancho Grande, nine second feet; and upon the Spring Creek ranch two and a half second feet. The right of the plaintiff to receive at the rate of two and three-fourths acre feet for 6500 acres shall be deemed to be available for its use out of the natural flow of the stream during the season from April 1st to September 1st of each year; and up to the maximum amount of two and three-fourths acre feet it may, to supply said right, draw from the stream at the rate of a second foot for each 50 acres at any time during said season, so long as there is water in the

stream applicable to such right according to the dates hereinbefore found and stated. In other words, in utilizing the rights awarded to the defendant, and the rights awarded to the plaintiff on account of the 6500 acres, the parties will be permitted to draw from the stream during the season specified at the rate of a second foot for each fifty acres until they have received the maximum, in acre feet, allowed.

Endorsed: Filed Dec. 13, 1915.

W. D. McReynolds, Clerk.

(Title of Court and Cause.)

DECREE.

This cause came on further to be heard at this term of this Court, the same having been heretofore submitted, and the Court's decision having been heretofore filed herein;

Thereupon, upon consideration thereof, it was ORDERED, ADJUDGED AND DECREED:

1. That the extent and relative dignity of the rights of the several parties hereto to use for irrigation purposes the waters of what is known as Goose Creek and its tributaries, which stream flows in a northerly and northeasterly direction from the State of Nevada into the State of Idaho, and the watershed of which is situated in both states, are defined as follows:

Rights of the Plaintiffs, Twin Falls Oakley Land and Water Company, and Oakley Canal Company.

(a) The plaintiffs, the Twin Falls Oakley Land and Water Company, a corporation, and Oakley Ca-

nal Company, a corporation, are entitled to divert and use annually:

825 acre feet of water, under their appropriation made May 1, 1878.

275 acre feet of water, under their appropriation made May 1, 1879.

687.5 acre feet of water, under their appropriation made May 1, 1880.

2337.5 acre feet of water, under their appropriation made May 1, 1882.

1375 acre feet of water, under their appropriation made May 1, 1883.

8250 acre feet of water, under their appropriation made May 1, 1884.

4125 acre feet of water, under their appropriation made May 1, 1888.

Said plaintiffs are further entitled to divert and use at the rate of 500 cubic feet of water per second of time by virtue of their appropriation made March 27th, 1908, under permit No. 3751, issued by the State Engineer of the State of Idaho; and 600 cubic feet of water per second of time by virtue of their appropriation made March 10, 1909, under permit No. 4731; all of said water to be used on lands embraced in what is known as the Oakley Carey Act project, hereinafter more fully described.

Rights of Vineyard Land and Stock Company, a corporation, and Utah Construction Company, a corporation.

(b) The defendants, Vineyard Land and Stock Company, a corporation, and Utah Construction

Company, a corporation, are entitled to divert and use annually :

200 acre feet of water, under their appropriation made May 1, 1875, for use on their Winecup ranch

650 acre feet of water, under their appropriation made May 1, 1883, for use on their Grande ranch.

250 acre feet of water, under their appropriation made May 1, 1886, for use on their Winecup ranch.

150 acre feet of water, under their appropriation made May 1, 1889, for use on their Grande ranch.

400 acre feet of water, under their appropriation made May 1, 1900, one-half on the Winecup ranch and one-half on the Grande ranch.

285 acre feet of water, under their appropriation made May 1, 1904, for use upon their Spring Creek ranch, the lands in said three ranches being hereinafter more fully described.

The relative priority of rank of said several rights of the plaintiffs and of the defendants is and shall be recognized as being in the order of the dates of the several appropriations, and no one holding a subsequent appropriation shall be entitled to receive any water until all prior appropriations have been fully satisfied.

2. It is further adjudged and decreed that the said defendants may, within the maximum amount

of their annual right, as the same is hereinbefore defined, divert the water to which they are entitled from said Goose Creek and its tributaries at the rate of not in excess of six and one-half cubic feet per second of time for the Winecup ranch, nine cubic feet per second of time for the Grande ranch, and two and one-half cubic feet per second of time for the Spring Creek ranch.

In utilizing such rights of the plaintiffs as are hereinbefore defined in terms of acre feet, they may divert from the channel of the stream, that is, they shall have the right to receive into their reservoir from the natural flow of the stream not to exceed at the rate of a second foot for each 137.5 acre feet of the appropriation or right, the aggregate amount so diverted not to exceed the total number of acre feet constituting such right. This provision shall not be construed as limiting the amount which the plaintiffs may at any one time divert from their reservoir and use.

The right to divert water at the outlet of the Oakley reservoir shall be limited under all of the rights decreed to the plaintiffs herein to the amount of one hundred forty-five thousand two hundred (145,200) acre feet annually.

3. Each of the parties hereto, together with its agents, servants and employes, and those claiming by, through or under it, is perpetually enjoined from using any of the waters of said stream or its tributaries in excess of its several rights as the same are hereinbefore defined, and from using the water at

such time or in such manner or in such amount as will infringe upon any right of another party, as such right is hereinbefore defined.

4. It is further ordered and decreed that all water diverted from said Goose Creek and its tributaries be measured at the point of diversion from the natural channel, and that no water shall be diverted except through conduits so constructed that water can be accurately measured. The plaintiffs are required to install a suitable and sufficient measuring device at a convenient point immediately above the Oakley reservoir, and also at the point of diversion at the outlet of what is known as the Oakley reservoir in Section 25, Township 14 South, Range 22 East, Boise Meridian, Cassia County, State of Idaho, and the defendants are required to install uniform measuring devices at their several points of diversion along the stream and its tributaries, all of such devices to be of such design as to automatically register the amounts of water diverted. All of such measuring devices and gauges shall at all times be subject to the reasonable inspection of either party, and each party shall have access to the premises where the same are situated for such purpose.

5. The lands for which the plaintiffs have the right to use water are embraced within the Oakley Project, in Cassia County, Idaho, and are described as follows:

Commencing at the diversion point in the East Side Canal of said Oakley Project in Section eighteen (18), township fourteen (14) south, range twenty-

two (22) east, Boise meridian; thence along said canal in a northeasterly direction to the point of intersection with the Main East Side Canal in section twenty-seven (27), township thirteen (13) south, range twenty-two (22) east; thence continuing in a northeasterly direction to the point of crossing with the middle line of section one (1), township thirteen (13) south, range twenty-two (22) east; thence north along said middle line of said section to the middle of the south line of section thirty-six (36), township eleven (11) south, range twenty-two (22) east; thence west to the northwest corner of section six (6), township twelve (12) south, range twenty-one (21) east; thence south to the intersection with the West Side Canal of said Oakley Project; thence southeasterly along said canal to the head of said canal in section seventeen (17), township fourteen (14) south, range twenty-two (22) east, Boise meridian.

The defendants' Winecup ranch upon which the water applying thereto may be used consists of three hundred and twenty-five acres, being the whole or part of the following legal subdivisions situate in Elko county, Nevada, to-wit:

Section twelve (12), township forty-six (46) north, range sixty-eight (68) east, Mt. D. M.—South half ($S\frac{1}{2}$) of southeast quarter ($SE\frac{1}{4}$) of southwest quarter ($SW\frac{1}{4}$).

Section thirteen (13), township forty-six (46) north, range sixty-eight (68) east, Mt. D. M.—East half ($E\frac{1}{2}$) of northwest quarter ($NW\frac{1}{4}$), east half

(E $\frac{1}{2}$) of northeast quarter (NE $\frac{1}{4}$) of southwest quarter (SW $\frac{1}{4}$), east half (E $\frac{1}{2}$) of southeast quarter (SE $\frac{1}{4}$) of southwest quarter (SW $\frac{1}{4}$), west half (W $\frac{1}{2}$) of southeast quarter (SE $\frac{1}{4}$), west half (W $\frac{1}{2}$) of northeast quarter (NE $\frac{1}{4}$) of southeast quarter (SE $\frac{1}{4}$), west half (W $\frac{1}{2}$) of southeast quarter (SE $\frac{1}{4}$) of southeast quarter (SE $\frac{1}{4}$), west half (W $\frac{1}{2}$) of west half (W $\frac{1}{2}$) of northeast quarter (NE $\frac{1}{4}$).

Section twenty-four (24), township forty-six (46) north, range sixty-eight (68) east, Mt. D. M.—east half (E $\frac{1}{2}$) of northeast quarter (NE $\frac{1}{4}$).

The defendants' Grande ranch upon which the water applying thereto may be used consists of four hundred fifty (450) acres, being the whole or part of the following legal subdivisions situate in Elko County, Nevada, to-wit:

Section twenty-six (26), township forty-seven (47) north, range sixty-eight (68) east, Mt. D. M.—east half (E $\frac{1}{2}$) of southeast quarter (SE $\frac{1}{4}$) of southwest quarter (SW $\frac{1}{4}$), south half (S $\frac{1}{2}$) of southwest quarter (SW $\frac{1}{4}$) of southeast quarter (SE $\frac{1}{4}$).

Section thirty-five (35), township forty-seven (47) north, range sixty-eight (68) east, Mt. D. M.—west half (W $\frac{1}{2}$) of northeast quarter (NE $\frac{1}{4}$), west half (W $\frac{1}{2}$) of northeast quarter (NE $\frac{1}{4}$) of northeast quarter (NE $\frac{1}{4}$), west half (W $\frac{1}{2}$) of southeast quarter (SE $\frac{1}{4}$) of northeast quarter (NE $\frac{1}{4}$), west half (W $\frac{1}{2}$) of southeast quarter (SE $\frac{1}{4}$), west half (W $\frac{1}{2}$) of northeast quarter (NE $\frac{1}{4}$) of southeast

quarter ($SE\frac{1}{4}$), west half ($W\frac{1}{2}$) of southeast quarter ($SE\frac{1}{4}$) of southeast quarter ($SE\frac{1}{4}$), east half ($E\frac{1}{2}$) of northeast quarter ($NE\frac{1}{4}$) of northwest quarter ($NW\frac{1}{4}$).

Section two (2), township forty-six (46) north, range sixty-eight (68) east, Mt. D. M.—northwest quarter ($NW\frac{1}{4}$) of northeast quarter ($NE\frac{1}{4}$), west half ($W\frac{1}{2}$) of northeast quarter ($NE\frac{1}{4}$) of northeast quarter ($NE\frac{1}{4}$), west half ($W\frac{1}{2}$) of southeast quarter ($SE\frac{1}{4}$) of northeast quarter ($NE\frac{1}{4}$), southwest quarter ($SW\frac{1}{4}$) of northeast quarter ($NE\frac{1}{4}$), east half ($E\frac{1}{2}$) of northwest quarter ($NW\frac{1}{4}$) of southeast quarter ($SE\frac{1}{4}$), east half ($E\frac{1}{2}$) of southwest quarter ($SW\frac{1}{4}$) of southeast quarter ($SE\frac{1}{4}$), east half ($E\frac{1}{2}$) of southeast quarter ($SE\frac{1}{4}$).

Section eleven (11), township forty-six (46) north, range sixty-eight (68) east, Mt. D. M.—northeast quarter ($NE\frac{1}{4}$) of northeast quarter ($NE\frac{1}{4}$), east half ($E\frac{1}{2}$) of the northwest quarter ($NW\frac{1}{4}$) of the northeast quarter ($NE\frac{1}{4}$).

Section twelve (12), township forty-six (46) north, range sixty-eight (68) east, Mt. D. M.—west half ($W\frac{1}{2}$) of northwest quarter ($NW\frac{1}{4}$) of northwest quarter ($NW\frac{1}{4}$), and northwest quarter ($NW\frac{1}{4}$) of southwest quarter ($SW\frac{1}{4}$) of northwest quarter ($NW\frac{1}{4}$).

Section one (1), township forty-six (46) north, range sixty-eight (68) east, Mt. D. M.—west half ($W\frac{1}{2}$) of southwest quarter ($SW\frac{1}{4}$) of southwest quarter ($SW\frac{1}{4}$), west half ($W\frac{1}{2}$) of northwest quarter ($NW\frac{1}{4}$) of southwest quarter ($SW\frac{1}{4}$).

The defendants' Spring Creek ranch consists of one hundred twenty (120) acres comprising the whole or a part of the following legal subdivisions situate in Elko County, Nevada, to-wit:

Section twenty-three (23), township forty-six (46) north, range sixty-nine (69) east, Mt. D. M.—west half ($W\frac{1}{2}$) of southwest quarter ($SW\frac{1}{4}$), west half ($W\frac{1}{2}$) of west half ($W\frac{1}{2}$) of southeast quarter ($SE\frac{1}{4}$) of southwest quarter ($SW\frac{1}{4}$), west half ($W\frac{1}{2}$) of west half ($W\frac{1}{2}$) of northeast quarter ($NE\frac{1}{4}$) of southwest quarter ($SW\frac{1}{4}$), west half ($W\frac{1}{2}$) of southwest quarter ($SW\frac{1}{4}$) of northwest quarter ($NW\frac{1}{4}$), south half ($S\frac{1}{2}$) of northwest quarter ($NW\frac{1}{4}$) of northeast quarter ($NE\frac{1}{4}$), north half ($N\frac{1}{2}$) of southwest quarter ($SW\frac{1}{4}$) of northeast quarter ($NE\frac{1}{4}$), southwest quarter ($SW\frac{1}{4}$) of northeast quarter ($NE\frac{1}{4}$) of northeast quarter ($NE\frac{1}{4}$), northwest quarter ($NW\frac{1}{4}$) of southeast quarter ($SE\frac{1}{4}$) of northeast quarter ($NE\frac{1}{4}$), and northeast quarter ($NE\frac{1}{4}$) of northwest quarter ($NW\frac{1}{4}$).

6. It is further adjudged and decreed that the Court retain jurisdiction to make all reasonable rules touching the manner of diverting, measuring and distributing the water, and the devices to be installed and used for such purposes, and to direct that the parties keep accurate and detailed records of the amounts of water diverted and to require reports to be filed from time to time of the amounts so diverted, and generally to make such orders as may be found reasonably necessary to give effect to the decree, and

to appoint commissioners or watermasters to make distribution in accordance with its terms, and to punish the parties hereto, their officers, agents and employes, and their successors in interest, for any violations of the provisions thereof.

Dated this 30th day of March, 1916.

FRANK S. DIETRICH,

District Judge.

Endorsed: Filed March 30, 1916.

W. D. McReynolds, Clerk.

(Title of Court and Cause.)

PETITION FOR APPEAL.

To the Honorable Frank S. Dietrich, District Judge:

The above named defendants, Vineyard Land and Stock Company and Utah Construction Company, feeling aggrieved by the decree rendered and entered in the above entitled cause on the 30th day of March, 1916, do hereby appeal from said decree to the Circuit Court of Appeals for the Ninth Judicial Circuit, for the reasons set forth in the Assignment of Errors filed herewith, and they pray that their appeal be allowed and that citations be issued as provided by law, and that a transcript of the record proceedings and documents upon which said decree was based, duly authenticated, be sent to the United States Circuit Court of Appeals for the Ninth Judicial Circuit, under the rules of such Court in such cases made and provided.

And your petitioners further pray that the proper

order relating to the required security to be required of them be made.

Dated this 20th day of Sept., 1916.

ANDREW HOWAT,
J. A. MARSHALL,
HERBERT R. MACMILLAN,
FRANK K. NEBEKER,
EDWIN SNOW,
C. A. BOYD,
C. B. HENDERSON,

Solicitors for Defendants.

Appeal allowed upon giving bond as required by law for the sum of three hundred dollars (\$300.00).

Dated Sept. 20, 1916.

FRANK S. DIETRICH,
United States District Judge
for the District of Idaho.

Endorsed: Filed Sept. 20, 1916.

W. D. McReynolds, Clerk.

(Title of Court and Cause.)

ASSIGNMENT OF ERRORS.

Now come the defendants in the above entitled cause, and file the following assignment of errors, upon which they will rely upon the prosecution of the appeal herein from the decree made by this Honorable Court on the 30th day of March, A. D. 1916:

I.

The Court erred in decreeing to plaintiffs any of the waters of said Goose Creek and its tributaries, with the exception of such said waters, to-wit, about

30,000 acre feet thereof, as plaintiffs are entitled to under permits issued by the State Engineer of the State of Idaho, being respectively, permit number 3751, dated March 27, 1908, and permit number 4731, dated March 10, 1909.

II.

Even if the Court did not err in decreeing to plaintiffs water rights in said streams other than those to which plaintiffs are entitled under said permits No. 3751 and No. 4731, respectively, the Court erred nevertheless in decreeing to plaintiffs water from said streams, other than as follows:

450 acre feet dating from May 1st, 1878;
150 acre feet dating from May 1st, 1879;
300 acre feet dating from May 1st, 1881;
1350 acre feet dating from May 1st, 1883;
6755 acre feet dating from May 1st, 1888; and
21025 acre feet under said permits No. 3751 and No. 4731.

III.

The Court erred in making and entering said decree, in awarding and decreeing to plaintiffs the right to the use of any of the waters of said Goose Creek and its tributaries as a prior right to the rights of the defendant Vineyard Land and Stock Company in and to said waters.

IV.

The Court erred in making and entering said decree, in not holding that the defendant Vineyard Land and Stock Company had the following rights to the use of the waters of said streams:

400.0 acre feet, dating from the year 1875;
1018.4 acre feet, dating from May 1st, 1883;
962.0 acre feet, dating from May 1st, 1886;
15.6 acre feet, dating from May 1st, 1888;
393.6 acre feet, dating from May 1st, 1889; and
1418.4 acre feet, dating from various dates between the year 1890 and January 1st, 1906.

V.

The Court erred in making and entering said decree in enjoining the defendant Vineyard Land and Stock Company from using the waters of said streams to which it is entitled upon the lands of said defendant susceptible of irrigation from the waters of said streams other than the lands specifically mentioned and described in said decree.

VI.

The Court erred in limiting and restricting the defendant Vineyard Land and Stock Company with reference to the sizes of irrigation streams to be used by it in the irrigation of its lands in the State of Nevada from the waters of said Goose Creek and its tributaries.

VII.

The Court erred in decreeing absolutely to the plaintiffs any of the waters of Goose Creek and its tributaries in excess of the quantity, to-wit, about 30,000 acre feet, which has been used by plaintiffs for beneficial purposes, and in enjoining the defendant Vineyard Land and Stock Company from using any of such excess waters prior to the actual application of the same by plaintiffs to the beneficial uses

for which said waters are claimed; and in making and entering any decree herein with respect to such excess waters, except to determine the amount thereof that can be diverted through plaintiffs' works, and the priority of the same, and to set a time within which such amount of such excess shall, subject to the rights of the defendant, be applied by plaintiffs to the purposes for which the same is claimed.

VIII.

The Court erred in making and entering its decree herein enjoining the defendant Vineyard Land and Stock Company from changing the points of diversion and places of use of the waters of said Goose Creek and its tributaries, in the State of Nevada, as authorized by the laws of said state.

IX.

The Court erred in making and entering its decree herein enjoining the defendant Vineyard Land and Stock Company from irrigating its lands in the State of Nevada by means of dams placed in the natural channels of said Goose Creek and its tributaries, and in sloughs and other channels leading therefrom, thereby flooding said lands without the use of artificial canals, ditches and conduits, and in enjoining the defendant Vineyard Land and Stock Company from diverting any of the waters of said stream or its tributaries, except by means of ditches or other devices provided with automatic gauges.

X.

The Court erred in making and entering its decree herein requiring the defendant Vineyard Land and

Stock Company to install in all of its ditches, canals and conduits, in the State of Nevada, automatic measuring devices for measuring all waters used by the said defendant from said streams, in said state, and in decreeing that all such measuring devices and gauges shall at all times be subject to the inspection of plaintiffs; and in decreeing that plaintiffs should have the right to go upon the lands of said defendant in the State of Nevada for the purpose of inspecting the measuring devices installed by defendant in its said ditches, canals and other conduits.

XI.

The Court erred in making and entering its decree herein in retaining jurisdiction for the purpose of making rules touching the manner of diverting, measuring and distributing said waters, or for the purpose of making rules concerning the devices to be installed and used for diverting, measuring and distributing said waters, or for the purpose of directing the defendants to keep records of the amounts of water diverted by said Vineyard Land and Stock Company, or for the purpose of requiring defendants, or either of them, to make or file reports concerning the amounts of water diverted, or for the purpose of appointing commissioners of watermasters to make distribution of said waters, or for the purpose of making any order whatever touching the distribution, points of diversion, places of use, or methods of irrigation, in the use of said waters by the defendant Vineyard Land and Stock Company in connection with the irrigation of its lands in the State of Nevada.

XII.

In addition to the foregoing, The Utah Construction Company assigns as error, that the Court erred in making and entering the decree herein as to it, and in not dismissing the bill of complaint as to said defendant.

WHEREFORE, the appellants, and each of them, pray that said decree be reversed and that such decree be entered as is meet and equitable.

ANDREW HOWAT,

J. A. MARSHALL,

HERBERT R. MACMILLAN,

FRANK K. NEBEKER,

Residence: Salt Lake City, Utah;

C. B. HENDERSON,

Residence: Elko, Nevada;

EDWIN SNOW,

Residence: Boise City, Idaho;

C. A. BOYD,

Residence: Ogden City, Utah;

Solicitors for Defendants.

Endorsed: Filed Sept. 20, 1916.

W. D. McReynolds, Clerk.

(Title of Court and Cause.)

STIPULATION.

IT IS STIPULATED that all of plaintiffs' exhibits, except those numbered 1 to 5-C, inclusive, 9 and 10, may be omitted from the printed transcript of the record on appeal, and that the originals of all other exhibits introduced by plaintiffs, as well as defendant's exhibits numbered 1, 2, 3, 4 and 5, may

be by the clerk of the above entitled Court transmitted separately from the printed transcript to the United States Circuit Court of Appeals for the Ninth Judicial Circuit, and that said exhibits so transmitted separately from the printed transcript may be considered by said Circuit Court of Appeals the same in all respects as if said exhibits were incorporated in said printed transcript.

It is further stipulated that if said Circuit Court of Appeals shall of its own motion determine that any part of the record not included in the printed transcript should have been so included for the information or convenience of the Court, or if either party shall hereafter desire any additional part of the record certified to said Court, or printed as a part of the record, the same may be certified up to said Circuit Court of Appeals, and, if required, printed as a supplement to the record at the expense, in the first instance, of the appellants.

Dated this 20th day of Sept., 1916.

S. H. HAYS,

P. B. CARTER,

Solicitors for Plaintiffs.

ANDREW HOWAT,

J. A. MARSHALL,

HERBERT R. MACMILLAN,

FRANK K. NEBEKER,

EDWIN SNOW,

C. B. HENDERSON,

C. A. BOYD,

Solicitors for Defendant.

Endorsed: Filed Sept. 20, 1916.

W. D. McReynolds, Clerk.

By Pearl E. Zanger, Deputy.

(Title of Court and Cause.)

ORDER FOR TRANSMISSION OF ORIGINAL
EXHIBITS.

It appearing to me to be necessary and proper that the original papers hereinafter mentioned should be inspected in the United States Circuit Court of Appeals for the Ninth Judicial Circuit, upon appeal herein:

It is hereby ordered that plaintiffs' original exhibits numbered six and seven, and eleven to twenty-four, inclusive, and defendants' original exhibits numbered one, three, four and five, shall be certified by the clerk of this Court and transmitted to the clerk of the United States Circuit Court of Appeals for the Ninth Judicial Circuit, separately from the printed transcript herein, at the time that said printed transcript is transmitted.

Dated this 20th day of September, A. D. 1916.

FRANK S. DIETRICH,
United States District Judge
for the District of Idaho.

Endorsed: Filed Sept. 20, 1916.

W. D. McReynolds, Clerk.

By Pearl E. Zanger, Deputy.

(Title of Court and Cause.)

PRECIPE.

The Clerk of the above entitled Court is hereby directed to transcribe for the record on appeal herein by defendants, Vineyard Land and Stock Company, and the Utah Construction Company, the following pleadings, exhibits and documents:

Bill of complaint, including statement of the substance of Exhibit "A" and a copy of Exhibit "B" attached to said bill of complaint, answer and proposed amendment to the answer, statement of evidence of all witnesses, including a copy of plaintiffs' exhibits numbered 1, 5-C, 8, 9 and 10, and a statement of the substance of plaintiffs' exhibits numbered 2, 3, 4, 5-A and 5-B; copy of defendant's exhibit numbered 2; the decision of the trial court, the decree made and entered in said cause, the petition for appeal and the order allowing the same, the assignment of errors, the citation, the stipulation between counsel for the respective parties as to the transmission of original exhibits, the precept to the clerk of said Court, the order of the trial Court for the transmission of original exhibits, the bond on appeal, the clerk's return to record and clerk's certificate.

Said clerk is directed in preparing the printed transcript on appeal herein to exclude the formal and immaterial parts of all of said pleadings, exhibits and documents.

Said clerk is also requested to attach his certificate to each original exhibit transmitted to the appellate Court.

Dated this 20th day of September, 1916.

ANDREW HOWAT,
J. A. MARSHALL,
HERBERT R. MACMILLAN,
FRANK K. NEBEKER,

Residence: Salt Lake City, Utah;

C. B. HENDERSON,

Residence: Elko, Nevada;

EDWIN SNOW,

Residence: Boise City, Idaho;

C. A. BOYD,

Residence: Ogden, Utah;

Solicitors for Defendants.

Due service of the foregoing is hereby admitted,
this 20th day of Sept., 1916.

S. H. HAYS,

P. B. CARTER,

Solicitors for Plaintiffs.

Endorsed: Filed Sept. 20, 1916.

W. D. McReynolds, Clerk.

(Title of Court and Cause.)

BOND ON APPEAL.

Know All Men By These Presents: That we, Vineyard Land and Stock Company, a corporation of Utah, and Utah Construction Company, a corporation of Utah, as principals, and American Surety Company of New York, a corporation of the State of New York, as surety, are held and firmly bound unto Twin Falls Oakley Land and Water Company, a corporation, and Oakley Canal Company, a corporation, in the sum of Three Hundred and no-100 Dollars (\$300.00), to be paid to them and to their respective successors and assigns;

To which payment well and truly to be made we bind ourselves, and each of us, jointly and severally, and each of our successors and assigns, by these presents.

Sealed with our seals and dated this 18th day of September, A. D. 1916.

WHEREAS, the above named Vineyard Land and Stock Company and Utah Construction Company are about to prosecute an appeal to the United States Circuit Court of Appeals for the Ninth Judicial Circuit, to reverse the judgment of the United States District Court for the District of Idaho, Southern Division, in the above entitled cause;

NOW, THEREFORE, the condition of this obligation is such that if the above named Vineyard Land and Stock Company and Utah Construction Company shall prosecute their said appeal to effect and answer all costs if they fail to make good their plea, then this obligation shall be void; otherwise to remain in full force and effect.

VINEYARD LAND AND STOCK COMPANY,

By Frank K. Nebeker,

Attest:

Its Attorney.

W. H. Wattis, Secretary.

UTAH CONSTRUCTION COMPANY,

By Frank K. Nebeker,

Attest:

Its Attorney.

W. H. Wattis, Secretary.

AMERICAN SURETY COMPANY OF NEW
YORK,

By W. E. McKell,

Attest:

Resident Vice President.

V. H. Galloway,

Resident Assistant Secretary.

(Countersigned) Sheppard & Falk,

(Corporate Seal)

By Bradley Sheppard,

Agent, Boise, Idaho.

STATUTORY AFFIDAVIT FOR CORPORATE
SURETY—IDAHO.

State of Utah,

County of Salt Lake,—ss.

On the 18th day of September, 1916, personally appeared before me, a Notary Public in and for the County and State aforesaid, W. E. McKell, to me known to be a Resident Vice President of the AMERICAN SURETY COMPANY OF NEW YORK, who, being by me duly sworn, did depose and say: That he resided in the City of Salt Lake City, State of Utah; that he is Resident Vice President of the AMERICAN SURETY COMPANY OF NEW YORK, the corporation described in and which executed the above instrument; that he knew the corporate seal of said corporation; that the seal affixed to said instrument was such corporate seal; that it was so affixed by order of the Board of Trustees of said corporation; and that he signed his name thereto by like order; that said corporation has complied with Chapter Eleven of the Idaho Revised Codes and all other laws of the State of Idaho relating to surety companies and has also complied with the Act of Congress approved August Thirteenth, A. D. 1894, entitled: "An Act relative to recognizances, stipulations, bonds and undertakings, and to allow certain corporations to be accepted as surety thereon," as amended March 23, 1910; and that the liabilities of said corporation do not exceed its assets as ascertained in the manner provided by law. And the said W. E. McKell further said that he was acquainted with V. H. Galloway and knew him to be one of the

Resident Assistant Secretaries of said corporation; that the signature of said V. H. Galloway subscribed to the said instrument is in the genuine handwriting of the said V. H. Galloway and was thereto subscribed by the like order of the said Board of Trustees, and in the presence of him, the said W. E. McKell, Resident Vice President. Affiant further says that the Insurance Commissioner of the State of Idaho, whose address is Boise, Idaho, has been appointed Attorney upon whom process for the State of Idaho may be served according to law.

W. E. McKELL.

Subscribed and sworn to before me this 18th day of September, 1916.

CORA BEATTY,

(Seal)

Notary Public.

Approved: Dietrich, Judge. Sept. 20, '16.

Filed Sept. 20, 1916. W. D. McReynolds, Clerk.

*In the District Court of the United States, for the
District of Idaho, Southern Division.*

TWIN FALLS OAKLEY LAND AND WATER
COMPANY, a corporation, and OAKLEY CA-
NAL COMPANY, a corporation, Plaintiffs,
vs.

VINEYARD LAND AND STOCK COMPANY, a
corporation, and UTAH CONSTRUCTION COM-
PANY, a corporation, Defendants.

CITATION ON APPEAL.

In Equity No. 510.

*The United States of America, to Twin Falls Oakley
Land and Water Company, a corporation, and
Oakley Canal Company, a corporation—
Greeting:*

YOU ARE HEREBY NOTIFIED that in a certain case in equity in the United States District Court for the District of Idaho, Southern Division, wherein Twin Falls Oakley Land and Water Company, a corporation, and Oakley Canal Company, a corporation, are plaintiffs, and Vineyard Land and Stock Company, a corporation, and Utah Construction Company, a corporation, are defendants, an appeal has been allowed the defendants therein to the United States Circuit Court of Appeals for the Ninth Judicial Circuit. You are hereby cited and admonished to be and appear in said United States Circuit Court of Appeals for the Ninth Judicial Circuit, at San Francisco, California, thirty (30) days after the date of this Citation, to show cause, if any there be, why the Order and Decree appealed from should not be corrected and speedy justice done the parties in that behalf.

WITNESS, The Honorable Frank S. Dietrich, Judge of the District Court of the United States, for the District of Idaho, Southern Division, this 20th day of September, A. D. 1916.

FRANK S. DIETRICH,
United States District Judge
for the District of Idaho.

Service accepted this 20th day of Sept., 1916.

S. H. HAYS,
P. B. CARTER,

Attorneys for Plaintiff.

Filed Sept. 20, 1916. W. D. McReynolds, Clerk.

RETURN TO RECORD.

And thereupon it is ordered by the Court that the foregoing transcript of the record and proceedings in the cause aforesaid, together with all things thereunto relating, be transmitted to the United States Circuit Court of Appeals for the Ninth Circuit, and the same is transmitted accordingly.

W. D. McREYNOLDS,

(Seal)

Clerk.

By PEARL E. ZANGER,

Deputy.

(Title of Court and Cause.)

CLERK'S CERTIFICATE.

I, W. D. McReynolds, Clerk of the District Court of the United States for the District of Idaho, do hereby certify that the above and foregoing transcript of pages from one (1) to three hundred and nine (309), inclusive, contain true and correct copies of Bill of Complaint, including statement of the substance of Exhibit "A" and a copy of Exhibit "B" attached to said Bill of Complaint, Answer and Proposed Amendment to the Answer, Statement of Evidence of all witnesses, including a copy of plaintiffs' exhibits numbered 1, 5-c, 9 and 10, and a statement of the substance of plaintiffs' exhibits numbered 2, 3, 4, 5-a and 5-b; copy of defendant's exhibit numbered 2, the Decision of the trial court, the Decree made and entered in said cause, the Petition for Appeal and the Order allowing the same, the Assignment of Er-

rors, the Stipulation between counsel for the respective parties as to the transmission of original exhibits, the Praeceptum to the Clerk of said Court, the Order of the trial Court for the transmission of original exhibits, the Bond on Appeal, the Clerk's Return to Record and Clerk's Certificate, in the above entitled cause, which together constitute the transcript of record herein upon appeal to the United States Circuit Court of Appeals for the Ninth Judicial Circuit. I further certify that I have annexed to said transcript of the record the original Citation issued in said cause. I further certify that the costs of the record herein amount to the sum of three hundred and fifty-nine and 75-100 dollars (\$359.75), and that the same has been paid by appellant.

Witness my hand and the seal of said Court affixed at Boise, Idaho, this 23rd day of November, 1916.

W. D. McREYNOLDS,

(Seal)

Clerk.

By PEARL E. ZANGER,

Deputy Clerk.